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AIR CONDITIONING & REFRIGERATION News

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INSIDE DOPE

by GEORGE F. TAUBENECK

Story of the Week
Gags of the Week
Verse of the Week
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You'll Love This
Philosophy of the Week
What Labor Politicians Will Push For This Year
Boondoggle Beaten
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Story of the Week

"I'd like a 16-to-1 Martini, please."

After a second inquiry (to find out if his ears had been deceiving him) the bartender meticulously followed instructions. And then he made a mistake. Automatically he twisted a tiny lemon-peel over this powerhouse.

The customer smacked the glass and its ingredients out of the bartender's hand and into smithereens.

"Anytime I want a lemonade," he yipped, "I'll order it myself."

Gags of the Week

The three ages of man include the school tablet, the aspirin tablet, and the stone tablet.—OLIVER BEACON.

You're an old-timer if you remember when it was the help, not the boss, who worked a 12-hour day.—NEAL O'HARA.

A group of women who surveyed members of their club on the subject, "an ideal husband," received one exceptionally disturbing reply:

"An ideal husband is one who would die during the wedding night."

Verse of the Week

What if the rose-streak of morning
Pale and depart in a passion of tears?
Once to have hoped is not matter for scorning!
A minute's success pays the failure of years.

—ROBERT BROWNING

Quotes of the Week

The problem in defense is how far you can go without destroying from within what you are trying to defend from without.—DWIGHT D. EISENHOWER.

The power of the state is measured by the power than men surrender to it.—FELIX MORLEY.

You'll Love This

Our favorite columnist, H. C. L. Jackson, author of the delightful Conjure House book, "Dogs, Cats, and People" (which you can order directly from us) quoted verbatim:

Wally testifies that the other morning, around 6 o'clock, a brace of watchful and scoutcarred policemen were properly scandalized at seeing a battered sedan sail blissfully through a red light at Michigan and Griswold. The officers gave chase and nosed the erring car to the curb. One got out and started toward the driver. Then he stopped and stared: In the front passenger seat was a sizeable something covered with a blanket.

Could this be a corpse? But no! The blanket form began to squirm, which proved it could not be anything as listless as a defunct citizen.

By that time, both officers were out of the scout car, and the senior snapped at the driver:

"Whacha got under that blanket?"

The driver said "Awk," and the blanket came to life. It sorta lifted up in the air and fell to the floor, disclosing a tousle-headed gent in factory clothes.

"Where are we?" demanded this un-blanketed worthy, and "what's wrong now?"

The Law responded: "You sick?" and "Naw," from the Worthy. The Law demanded: "You cold?" and "Naw," from the Worthy.

"Then," and the voice of the Law was harsh, "what the twittering ding-dong are you doin', ridin' around with a blanket over your head?"

Sighed the Worthy: "It's like this.

(Concluded on Page 8, Column 1)

Servel 'Food Plan' Lets Buyer Choose Brand, Store

EVANSVILLE, Ind.—A new type of "food plan" for freezer owners is claimed to save the consumer 25% on food purchases—regardless of the brand she selects or the store she patronizes.

This combination food-and-freezer plan was announced here recently by Servel, Inc. Gordon Malone, Servel freezer division sales manager, said the plan applies to all models in the company's 1953 line of three horizontal and two vertical home freezers.

"Under it," he said, "the freezer owner may choose her own assortment of fresh and frozen food—any kind, any brand, any size. She can shop wherever she wishes — at one store or several. She can buy in any quantity she desires—one package, a

(Concluded on Page 4, Column 2)

'53 Appliance Sales Get Off To Good Start

January Home Freezer Sales Double In Philadelphia Area

PHILADELPHIA — Home freezer sales during January in the five counties surrounding Philadelphia nearly doubled those of a year ago, the Electric Association of Philadelphia reported recently.

Dishwashers also showed a large percentage gain, up 72% over the previous year. Water heater sales for the month as compared with the first month of 1952 rose 31%, refrigerator sales 15%, and electric range sales 12%. Clothes dryer sales dropped 11% and television sales 13%.

Comparative unit sales of the various appliances were as follows:

Appliance	Jan. 1953	Jan. 1952
Home Freezers..	1,457	734
Refrigerators ...	4,917	4,272
Ranges	1,192	1,059
Dishwashers	257	149
Clothes Dryers ..	756	842
Water Heaters ..	864	659
Television	16,200	18,447

The report covers sales in the counties of Bucks, Chester, Delaware, Montgomery, and Philadelphia.

Dryers, Freezers Show Strong Sales Gains In West Penn Area

PITTSBURGH—Electric household appliance sales for January in southwestern Pennsylvania, while experiencing slight ups and downs, were generally on a par with those of January a year ago, the West Penn Power Co. reported recently.

Most substantial gains were registered by home freezers, dryers, and conventional washers. It was the biggest January on record for dryers. Dryer sales were up 50% over January, 1952. Freezer sales jumped 27% and conventional washers 12%.

(Concluded on Back Page, Column 2)

Detroit Contractors To Bargain as Unit On Servicemen Wage

DETROIT—Members of the Refrigeration and Air Conditioning Contractors Association of Detroit have voted to negotiate an association-wide contract for its servicemen with the Local 636 of United Association (AFL).

At a recent membership meeting 16 members voted in favor of bargaining with the union as an association, one member voted against it, and five abstained.

The association has a total of 50 members. But, said George Murphree, president, its by-laws permit the association to adopt an action with a favorable vote of 25% of the total membership. The 16 votes in favor of bargaining were well above the 25% needed.

Whether or not the association should bargain with the union for its members has been a subject of discussion for many years. The association's labor committee has been studying the question for some time and finally recommended that the practice be adopted.

Immediate action was needed because union contracts held by some of the members expire on May 1. Now they will negotiate as part of the association rather than as individual firms.

Next step is for the labor commit-

(Concluded on Back Page, Column 4)

EEI To Get Outlook On Room Units, Other Products at Meeting

NEW YORK CITY—Two industry executives will give their views on the long-term outlook for room air conditioners and major appliances at the 19th annual Edison Electric Institute sales conference.

The conference is set for March 30-April 2 at Chicago's Edgewater Beach hotel.

John M. Otter, vice president and general manager of Philco Corp.'s Refrigeration Div., will take a look at "The Future of Room Air Conditioner Sales—A Vast Business." The outlook for major appliances will be discussed by Clarence H. Linder, general manager of the Major Appliance Div. of General Electric Co.

Otter and Linder are scheduled to speak during the general session on Thursday morning, April 2. General sessions will also be held Wednesday morning and afternoon.

Other general-session speakers will be B. L. England, EEI president; Martin R. Gainsbrugh of the National Industrial Conference Board; James H. Jewell, vice president, Westinghouse Electric Corp.; Lowell B. Mason of the Federal Trade Commission; Wheeler McMillen, editor-in-chief of *Farm Journal;* Victor L.

(Concluded on Page 4, Column 3)

Complete Program For Hot Springs Rema Meeting

WASHINGTON, D. C. — Program details have been completed for the annual meeting of the Refrigeration Equipment Manufacturers Association to be held March 29, 30, and 31 at The Homestead, Hot Springs, Va. The principal speakers will be Joseph W. Fowler, Director, Defense Supply Management Agency; and Robert A. Whitney, president, National Sales Executives, Inc.

Fowler will speak on "The Military Standardization Program." Retired as a rear admiral in the U. S. Navy in 1948, he was requested by the Secretary of Defense in 1951 to assume his present duties. The program of standardization, which includes refrigeration and air conditioning equipment used by the armed forces, is aimed at broadening the base of available production facilities so as to supply the armed forces with what they need in the most simple and common-sense method.

Whitney will speak on "The Job

(Concluded on Back Page, Column 2)

Consumers More Ready To Buy Durables This Year, Says U. S. Survey

WASHINGTON, D. C.—The buying public feels that it is in a better position now to make such "major purchases" as refrigerators, home freezers, and other such products than they were at this time last year, the Federal Reserve Board reports.

A preliminary report from the board's eighth annual survey of Consumer Finances says that the proportion of potential buyers who feel that their financial situations have improved over the year before was somewhat larger this year than in any previous survey.

Plans to purchase major household goods were "substantially more numerous" than a year ago, the report said.

Non-farm consumers expect larger real incomes (after taxes and adjustment for any price increases) this year than last. Most of those interviewed believe that prices will remain stable or even go lower this year.

White-Rodgers Names 3 Sales Executives

ST. LOUIS—Appointments of two vice presidents and a sales manager were announced recently by White-Rodgers Electric Co. here.

Jack Searls has been named vice president in charge of clothes dryer control sales and L. F. Blough vice president in charge of all other control sales. R. A. Sherer was appointed sales manager.

Blough will continue as vice president in charge of armament.

End All Price Controls; Parts Rise Continues

No Steel Price Boost Now; Cooling Coils Going Up; Appliances Hold Steady

WASHINGTON, D. C.—All remaining price ceilings on any products under price control were removed on March 17 by the Office of Price Stabilization, and the U. S. economy is now free to direct price controls for the first time in more than two years.

In this final decontrol action price ceilings were lifted from steel, pig iron, all steel and iron mill products, sulphur and sulphur chemicals, machine tools, metal cans, and a number of alloying metals.

Removal of price ceilings on steel brought some conjecturing that there would be some immediate boosts in the prices of steel mill products, but many steel producers when contacted expressed a belief similar to that stated by a representative of U. S. Steel Corp. who said: "We do not contemplate a movement in steel prices at this time." A few said that there might be some "adjustments," but that they would not be "precipitous."

Meanwhile, there were further price increases on refrigeration and air conditioning components and parts. Most recent announcements were on boosts in prices of cooling coils to wholesalers, ranging from 5 to 21%, with the average being around 15%.

As reported in the March 16 issue of the NEWS, copper tubing prices have been increased as much as 8% in prices posted to refrigeration supplies wholesalers, and the notices of expected increases in brass valves and fittings which wholesalers received are now taking effect, with the increases ranging from 6 to 10%. Such increases will mean boosts of just about double that amount to the ultimate user.

Refrigerator, home freezer, room air conditioner, and major appliance prices generally were holding firm, at least for the present. There were scattered announcements of price adjustments on some individual appliand models, and two West Coast manufacturers (Wedgewood and O'Keefe & Merritt) announced across-the-board price increases on gas ranges.

Of significance to the price picture may be the fact that General Electric Co. has offered its 205,000 employes a pay increase based on the March 15 cost-of-living index of the Department of Labor. Observers think it may be difficult for consumer goods manufacturers to hold prices down in the face of increases in both labor and materials.

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New Producers, New Model Announcements Make Air Conditioning News This Week

Frigid, Inc. Announces New Window Conditioner

BROOKLYN — Introduction of a new 1953 window-type room air conditioner has been announced by Frigid, Inc. (formerly Circulators & Devices Mfg. Corp.) here.

The unit is being produced in ½, ¾, and 1-ton capacities. List prices of the models—7950D, 7975D, and 7910D8—are $339.95, $399.95, and $469.95, respectively.

(Concluded on Back Page, Column 1)

Viking Cooler Features Lighted Control Panel

CLEVELAND—A ¾-ton window-type room cooler featuring a lighted control panel will be placed on the market this spring by Viking Air Conditioning Corp. here, the company has announced.

The unit control will permit varying amounts of cool air flow, air circulation alone, or air and cooling both plus recirculation of room air,

(Concluded on Page 4, Column 1)

U. S. Radiator Enters Air Conditioning Field

DETROIT—Entry into the field of summer air conditioning by United States Radiator Corp. was announced recently by W. C. McCord, president.

"The two models offered at this time will provide year-round air conditioning by the simplest and least expensive method," McCord stated. "These models are intended for new or existing homes and commercial

(Concluded on Back Page, Column 5)

Iron Fireman Cooler Fits Any Forced Warm Air Unit

CLEVELAND—Entry into the central cooling unit field has been announced by Iron Fireman Mfg. Co.

According to R. C. Wright, manager, research and development engineering, the unit has been especially designed for easy access to all its elements. Any part can be serviced on the job without the need for removing the entire unit.

(Concluded on Back Page, Column 3)

Carrier Corp. has appointed The O'Donnell Heating and Air Conditioning Co. of Syracuse as exclusive Carrier distributor for 16 central New York counties. E. M. O'Donnell, president of the distributorship, is shown signing the franchise agreement as Cloud Wampler, president of Carrier, looks over his shoulder. At left is Leo Cooney, of the Cooney Co., Syracuse dealer, and at right, John M. Bickel, Carrier vice president.

New Carrier Distributor Appointment In New York Is Characteristic of Its National Franchising Plan

SYRACUSE, N. Y.—The O'Donnell Heating and Air Conditioning Co. of Syracuse has been named by Carrier Corp. as its exclusive distributor for 16 counties in central New York state.

Cloud Wampler, president, Carrier Corp., stated at the signing of the franchise that this agreement with one of Syracuse's leading distributor firms is typical of the distribution arrangements which Carrier maintains throughout the United States.

"The rapid growth of the air conditioning industry," Wampler said, "makes it necessary for us to establish in each major trading area one substantial distributorship which can handle the large volume of Carrier equipment in the area on a stocking and distributorship basis. These distributors in turn work through responsible dealers who are trained to engineer, install, and service all types of Carrier equipment from room air conditioners to 100-ton commercial or industrial sizes."

As an example of this, Wampler pointed out that the Cooney Co. of Syracuse will continue to sell Carrier equipment, particularly the larger type of installations which require the long experience in air conditioning by the Cooney firm. Similarly, Refrigerated Equipment Distributors will continue to sell Carrier's commercial refrigeration and ice maker lines in Syracuse.

The O'Donnell Heating and Air Conditioning Co. is a subsidiary of E. M. O'Donnell Co., which has a long record in the distribution of automobiles and major appliances. The new firm will be managed by Frank B. Clark.

In addition to Onondaga county, the O'Donnell distributorship franchise includes the following counties in central New York: St. Lawrence, Jefferson, Oswego, Cayuga, Cortland, Chenango, Madison, Oneida, Lewis, Herkimer, Hamilton, Otsego, Clinton, Essex, and Franklin.

Other firms in the surrounding counties which will continue to sell Carrier equipment and installations to the public within the O'Donnell distributorship area are: Utica Oil Heating in Utica, Crowley Brothers in Auburn, George B. Hyde Co. in Watertown, N. Y., Copeland Oil in Plattsburg, N. Y., and Electric Shoppe in Malone, N. Y.

Mills, Hermann Promoted By Mills Industries, Inc.

CHICAGO — Mills Industries, Inc. has announced the appointment of Fred L. Mills, Jr., as vice president in charge of engineering and Walter F. Hermann as vice president in charge of manufacturing.

Mills has been associated with the company for six and one-half years, serving as vice president in charge of manufacturing during the past year.

Hermann previously held the position of general works manager, serving in that capacity for over one year. Mills Industries manufactures beverage coolers and dispensers, ice cream and frozen custard equipment, and other related products.

Appliance Show Dates Set

OGDENSBURG, N. Y. — An appliance show will be held here March 26-28 under sponsorship of the Ogdensburg Chamber of Commerce.

Florida Court Holds Loan Company Liable If Goods It Finances Are Misrepresented

TALLAHASSEE, Fla. — A loan company which finances sales by a dealer in consumer goods shares the responsibility that the merchandise sold is what is was represented to be, according to an opinion handed down by the Florida Supreme Court.

Conceding its decision probably "will require some changes in business methods and will impose a greater burden on the finance companies," the court held Mutual Finance Co., Tampa, could not collect a note it held from F. J. Martin, a grocer, for the purchase of a home freezer which did not perform as the salesman had represented.

Martin purchased the freezer from W. A. Highsmith, a Homeland appliance dealer, on term payments. The contract was financed by the Mutual Loan Co., to which Martin's note was assigned by Highsmith.

Contending that the freezer would not serve the function the dealer had assured him it would, Martin rescinded the sales contract and halted payments on the note.

The finance company refused to repossess the freezer and sued to force payment of the note on the ground it was under the law a bona fide holder of the note and not subject to the defense of fraud and failure of consideration.

In an opinion written by Justice E. Harris Drew, the court held that since the finance company regularly financed the sales of the appliance dealer and furnished the dealer printed contract forms, it was to all intents and purposes a party to the transaction and shared responsibility that the freezer was as represented.

Although taking note of the finance company's plea that such a ruling "will destroy the long established precedent of the state of Florida and thereby seriously affect 'a certain mode of transacting business through the state,'" the court added:

"We think the buyer—Mr. and Mrs. General Public—should have some protection somewhere along the line. We believe the finance company is better able to bear the risk of a dealer's insolvency than the buyer and in a far better position to protect his interests against unscrupulous and insolvent dealers."

Hotpoint Announces 'Self-Quiz' Training Plan For Retail Appliance Salesmen

CHICAGO—A sales incentive program, designed to give retail salesmen added "appliance sales-ability," will carry for the first time in the appliance industry a new self-training technique, declares Hotpoint Co.

The new technique is based on the self-quiz so popular in magazines and books. A booklet which embraces this technique has been made available to all retail salesmen. It covers questions concerning all Hotpoint appliances which the salesman fills out. These questions are in the form of assignments, typical prospect objections, and suggestions of demonstrations to illustrate a point.

Each question challenges the creative thinking ability of the retail salesman; how fast he can think on his feet; or how well he can put the appliance feature across to the customer.

Such statements as, "It seems to me that all refrigerators are just the same," can put an unprepared salesman in a spot. Assignments such as, "Suggest a demonstration on the following five features of a new Hotpoint refrigerator," challenge his thinking power; or, "Telephone five present users of the new Hotpoint automatic dryer and determine what features they like most," test his analytical abilities.

Each booklet must be filled out by May 29 for the salesman to be elibible for more than 50 national and local prizes to be given away in connection with the contest and sales training program.

A series of four sales training meetings with Hotpoint's distributor salesmen will be held with the first in March and April; second in May and June; third in July and August; and the last in September and October.

ESCO-MO SAYS . . .

GET MORE "COLD PROFITS" WITH ESCO ICY-WALL® MILK COOLERS

Model "IW" ICY-WALL® Front-Opener

No other like it! "Jet" cooled in record time. Glistening walls of ice.

Model "VD" ICY-WALL®

Economy model. High in efficiency, low in price.

3 Complete lines!

for every need—every budget

No wonder you get bigger profits, faster turnover, greater volume with Esco! There's a model to suit the needs of every prospect on your list. And *every* Esco features the famous Icy-Wall super-cooling system . . . a triumph of 25 years' research! For details and prices, write us today.

Model "AD" "NI-AG-RA" ICY-WALL®

Water level stays neck-high all the time.

SELL THESE EXCLUSIVE FEATURES

- Glistening Walls of Ice.
- Strict Temperature Control.
- Super-Smooth Inside Walls and Bottom.

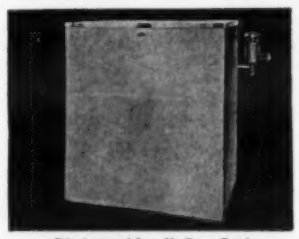
ESCO CABINET COMPANY

West Chester, Pennsylvania

For Recognized Quality - Extra Gallons

Sell Your Condensing Unit - Filtrine Water Coolers

Mess Hall—Cafeteria Cooler



Photographic—X-Ray Cooler

Typical "Packaged" Circulating Chilled Water System

Promote your own condensing unit sales with Filtrine's 20-year-life construction . . . high capacity . . . Super Storage . . . more than 40 years' dependability.

COOLERS FOR MESS HALLS — CAFETERIAS

Conform with Fed. Spec. 00-C-566b

COOLERS FOR X-RAY & PHOTOGRAPHY

PACKAGED CIRCULATING CHILLED WATER SYSTEMS

REMOTE COOLERS FOR ALL USES

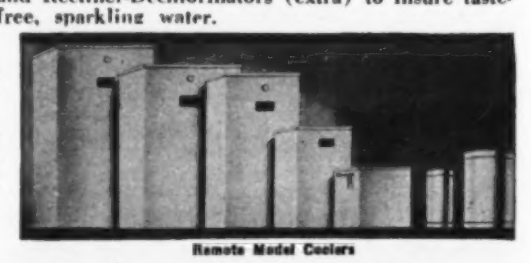
Sell your condensing unit with Filtrine Stainless Steel or Duco finished cabinets, equipped to suit with top/side shelves, bubblers, glass-fillers. Can be Taste-Master equipped to remove chlorine, rust, sediment from water.

Taste-Master

Sell your condensing unit with Filtrine models repeatedly named by V.A., Signal Corps, Air Force, etc. for X-ray and photo-labs. Under counter design and floor-mounted models with stainless steel work-table top. Filters (extra) to prevent scratched and pin-holed negatives.

Sell your condensing unit! Systems for drinking or processing water—completely packaged with pump, controls, your condensing unit factory installed. Capacities 5-400 g.p.h.; storage 5-150 gals. Filters and Rectifier-Dechlorinators (extra) to insure taste-free, sparkling water.

Sell your condensing unit with remote models for new and replacement jobs—all applications. Capacities 10-1000 g.p.h.; storage 7-300 gals. Filters, Rectifier-Dechlorinators available for all sizes.



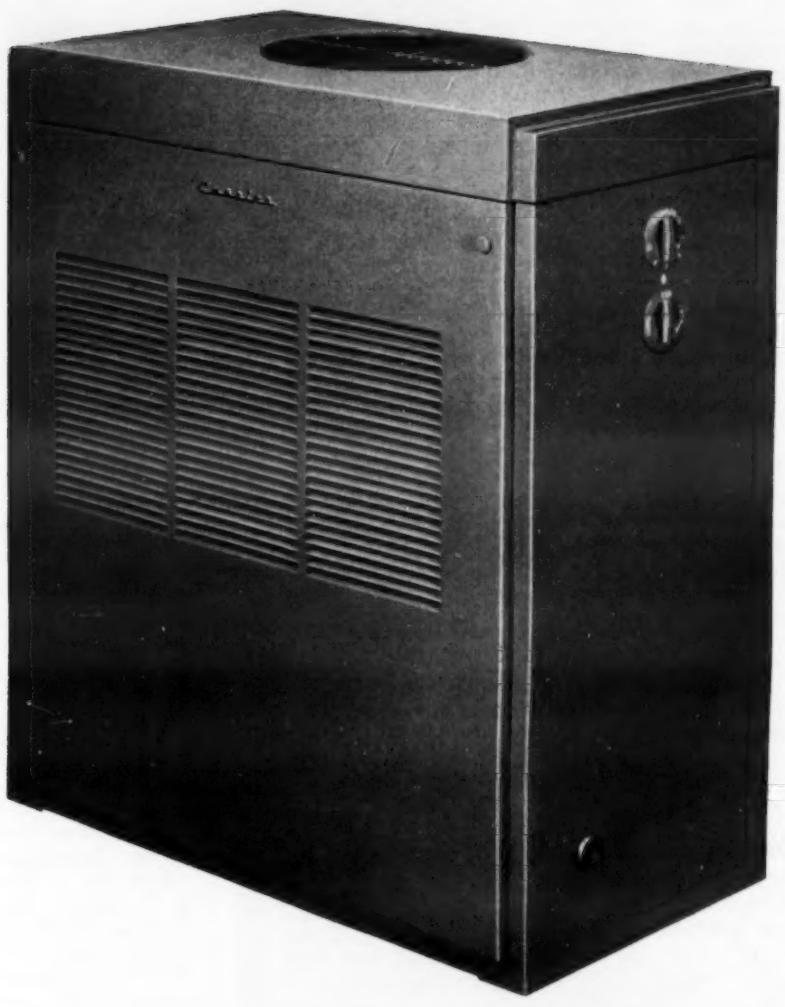
Remote Model Coolers

Write for catalog and Specification Guide

Filtrine HIGH EFFICIENCY FILTRINE MANUFACTURING COMPANY · BROOKLYN 5 · N. Y.

"Water Coolers and Filters for 40 Years"

New 2 hp Carrier



is three units in one!

- **Base unit without fan adds cooling to existing forced air systems**

- **Base unit with propeller fan provides in-the-space cooling**

- **Base unit with centrifugal fan for duct distribution**

This new 2 hp Carrier is a larger Room Air Conditioner, *and* a smaller Weathermaker! It's 3 units in 1 — and everything you've ever wanted in a 2 hp air conditioner!

Compact! This new Carrier occupies only 4½ square feet of floor space! The base unit is only 39 inches high! But packed into it is a 2 hp motor-compressor, water-cooled condenser, cooling coil, filter, controls!

Versatile! This new Carrier is fine for small stores, office suites, apartments and homes! Sell it for conference rooms, laboratories, motels, hotels! It will go anywhere!

Flexible! This new Carrier sits on the floor (or a counter), mounts on a wall, hangs from the ceiling, hides in a closet! Sections and panels swap in dozens of combinations, so you can fill the bill with this new Carrier on any installation!

Carrier

Air Conditioning • Refrigeration • Industrial Heating

Carrier Corporation
310 S. Geddes Street, Syracuse, New York

Please send me the name of my nearest Carrier distributor because I want to sell that wonderful new 2 hp Carrier. I'm also interested in the rest of the Carrier line (check one).

☐ up to 2 hp ☐ from 2 hp up

Name_____

Street_____

City_____ State_____

Viking Room Air Conditioner

Viking Conditioner--

(Concluded from Page 1, Column 3)

the company declared.

The unit will fit all double hung windows 28 in. wide or more. It will cool a room 300 to 500 sq. ft.

The sandalwood tan cabinet has sculptured fluting.

A series of seven colored sterioptican slides are being used by Viking representatives to introduce the unit to distributors and dealers.

An extensive cooperative advertising kit is in preparation for dealers. Four Vadnit (Viking Advertising Unit) coupons worth $3 each will be allowed on each sale.

Servel Food Plan--

(Concluded from Page 1, Column 2)

dozen packages, or a case. She can make her purchases whenever she likes.

When a customer buys a freezer, Malone explained, she may designate one or more stores where she shops. The Servel dealer then sends a check to the food merchant or merchants for the 25% saving, along with an explanatory letter and a food coupon booklet. The food merchant thus receives his full profit on the food he sells, and the consumer can get the added savings of buying during special sales.

The 25% savings applies to $100 worth of food for purchasers of Servel's 9-ft. or 11-ft. models. The purchaser of the 15-ft. freezer saves 25% on $150 worth of food, and the 22-ft. model brings a saving of 25% of $200 worth of food.

Malone also announced that all purchasers of Servel freezers are now protected by $250 insurance against food spoilage.

The freezers made their appearance in the Servel line of home appliances for the first time this year. The horizontal models have 2½-ft. "superspeed" quick-freeze compartments. Each is equipped with baskets, dividers adjustable to four positions, and racks which hold up to 27 cans of frozen fruit juices.

Color—icicle blue with gold trim—is used through the interiors of the upright models. Freezing coils form a component part of the open wire shelves, which permit circulation within the freezer and minimize the "spilling out" of cold air when the door is opened.

EEI Conference To Study 1953 Sales Outlook--

(Concluded from Page 1, Column 3)

Short, president, Institute of Human Science; and Jackson Martindell, president, American Institute of Management.

In addition to the general sessions, the sales conference will include a home service conference on Monday, March 30, and meetings of the residential, farm, commercial, and industrial power and heating sections on Tuesday.

Harold P. Bull, general sales manager, Bendix Home Appliances, and Spencer S. Meilstrup, appliance sales manager, Frigidaire Sales Corp., Cleveland, are two of the speakers who will address the residential section. Bull is to speak on "New Horizons in Residential Load Building," and Meilstrup will present "A Plan for Sales Training."

Besides other speakers, the farm section will hear Ben G. Sanderson, general sales manager of Deepfreeze, and J. Rushton, chairman of the Farm and Rural Market Development Committee of NEMA. Rushton will talk on "Home Appliances Make the Difference."

The tentative program for the conference follows:

MONDAY, MARCH 30

HOME SERVICE CONFERENCE

10 a.m.—"Demonstration Ideas That Build Load"—"The Electric Water Heater," Miss Helen Kirtland, Hotpoint Institute; "The Electric Dryer," Miss Verna L. Miller, Frigidaire; "The Electric Range and Freezer," Miss Karen Fladoes, Kelvinator.

"Home Service Promotes Home Safety," Miss Irene L. Muntz, Rochester Gas & Electric Corp.

"What Every Sales Manager Would Like To Know"—"An Evaluation of Home Service," Miss Elizabeth Parker, Georgia Power Co.; "An Interpretation of Home Service," Miss Valentine Thorson, Northern States Power Co.

TUESDAY, MARCH 31

RESIDENTIAL SECTION

10:15 a.m.—"The New Cook's Cook Book," Mrs. Harriet G. West, director, Home Service Div., Indianapolis Power & Light Co.

10:30 a.m.—"Using The Open End Mortgage To Sell Wiring and Appliances," Arthur S. Goldman, director of marketing and research, *House and Home.*

11 a.m.—"Profits In Gals.!", electric water heating committee.

11:15 a.m.—"As Usual, The Editors Find Fault," Frank R. Innes, *Electrical World,* moderator; Miss Bernice Strawn, *Woman's Home Companion;* Mrs. Elizabeth Sweeney Herbert, *McCall's;* Lawrence Wray, *Electrical Merchandising.*

2:15 p.m.—"New Ideas Through Dealer Workshops," M. R. Norton, chairman, dealer coordination committee.

2:45 p.m.—"New Horizons In Residential Load Building," Harold P. Bull, general sales manager, Bendix Home Appliances.

3:15 p.m.—"A Coordinated Program To Sell Electric Ranges," H. H. Brenan, chairman, electric kitchen and laundry committee.

3:25 p.m.—"Videotown, U. S. A.," G. W. Tasker, vice president for marketing, Cunningham & Walsh, Inc.

3:45 p.m.—"Health Home Council," E. O. George, manager of sales, The Detroit Edison Co.

3:55 p.m.—"A Plan for Sales Training," Spencer S. Meilstrup, appliance sales manager, Frigidaire Sales Corp., Cleveland.

FARM SECTION

9:30 a.m.—Opening Remarks, E. D. Smith, chairman, farm section.

9:45 a.m.—"The Rural Market Is the Big Opportunity for 1953," E. O. George, The Detroit Edison Co.

Noon—Farm Luncheon.

2:15 p.m.—"Farm Equipment Potentials," Paul W. Chapman, associate dean, College of Agriculture, University of Georgia.

3 p.m.—"Home Appliances Make the Difference," J. Rushton, chairman, farm and rural market development committee of NEMA.

3:45 p.m.—"Now Is the Time for Action," Ben G. Sanderson, general sales manager, Deepfreeze Appliance Div.

WEDNESDAY, APRIL 1

GENERAL SESSIONS

9:30 a.m.—Opening Remarks, J. Reed Hartman, chairman, commercial division general committee.

"Today and Tomorrow In Our Industry," B. L. England, president, Edison Electric Institute, and president, Atlantic City Electric Co.

"The Economic Outlook," Martin R. Gainsbrugh, director, Division of Business Economics, National Industrial Conference Board, Inc.

2:15 p.m.—"Reaching the Industrial Market," James H. Jewell, vice president, Westinghouse Electric Corp.

"Why Men Climb Mountains," Lowell B. Mason, commissioner, Federal Trade Commission.

"Agriculture's Impact on the Electric Industry," Wheeler McMillen, editor-in-chief, *Farm Journal.*

"More Effective Selling Through Human Engineering," Victor L. Short, president, Institute of Human Science.

THURSDAY, APRIL 2

GENERAL SESSION

9:30 a.m.—"The Future of Room Air Conditioner Sales—A Vast Business," John M. Otter, vice president-general manager, Refrigeration Div., Philco Corp.

"Appliances Unlimited," Clarence H. Linder, general manager, Major Appliance Div., General Electric Co.

"We Have Watts To Burn," commercial lighting committee presentation on the opportunities now being overlooked in the lighting field.

"Leaders Are Made, Not Born," Jackson Martindell, president, American Institute of Management.

Noon—General luncheon session—speaker, Charles T. Evans, assistant to the president, Arkansas Power & Light Co.

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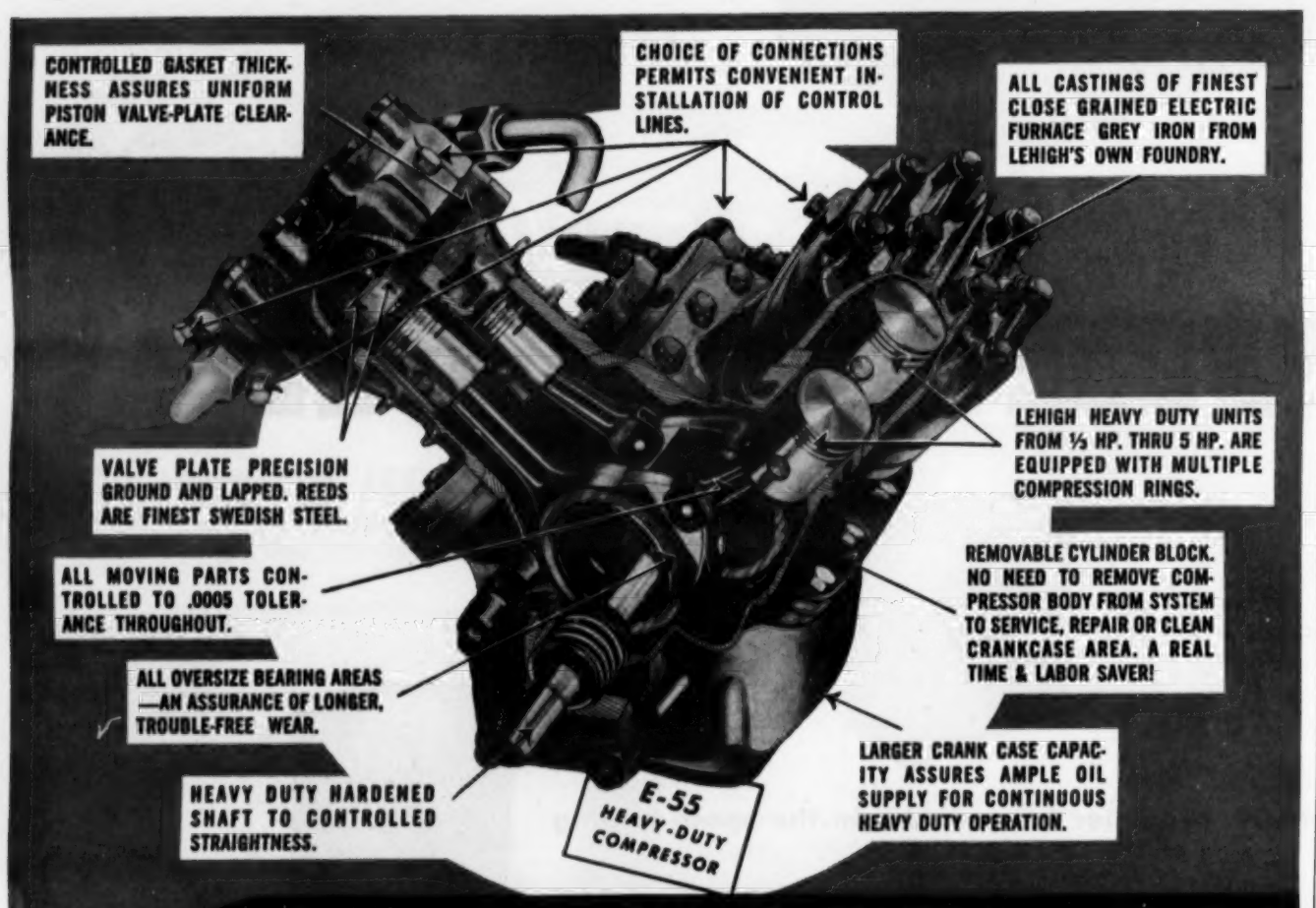
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E-55 HEAVY-DUTY COMPRESSOR

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CONDENSING UNITS and SYSTEMS

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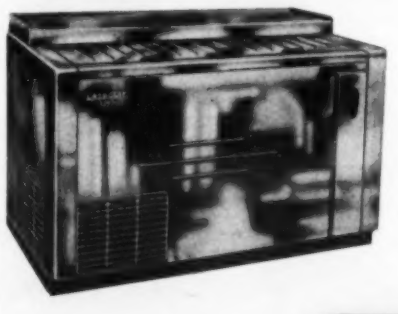

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FIVE-COMPARTMENT frozen food merchandiser cabinet introduced by Kelvinator during the recent Frozen Food convention gets the once-over from Diana Davis. Of 6-cu. ft. size, it holds 192 12-oz. food packages in five separate compartments. A special backboard is designed to accommodate dummy frozen food packages and provides space to write in current prices.

'Fountain Follies'—Story of Neglect

Equipment Makers Join With Dairy Field To Push Ice Cream Sales in Drug Stores

NEW YORK CITY—Following a comic portrayal of "Fountain Follies," a pointed story of what happens to a druggist who removes his soda fountain, M. L. Finneburgh of the Liquid Carbonic Corp. declared that the ice cream industry does not fully sell its product and suggested that dairy industry faults be explored, in his address at the luncheon closing the recent annual meeting of the Dairy Industries Supply Association.

Finneburgh most specifically criticized the dairy industry and druggists for the waning sales of bulk ice cream and lack of interest in the drugstore soda fountain. The skit to which his talk was linked was presented by the Lily-Tulip Cup Corp.'s Sales Training Department and introduced Fen K. Doscher, that company's sales vice president. In it a drugstore owner yearned for peace and got it—by taking his soda fountain out, but with its going went all trade and profit.

Asserting that the "soda fountain crisis" affects all the dairy industry, Finneburgh told the equippers and suppliers in dynamic platform style of the necessity of educating the bulk ice cream retailer in the "definite, profit-proven story" of the soda fountain as a generator of sales for every counter in a drug or other retail store, as well as at the fountain.

Chairman of the Soda Fountain Manufacturers Association, Finneburgh said that that organization's members welcome the supermarket—in which sales of packaged ice cream have steadily mounted—as an additional outlet for getting ice cream into the home. Supermarket package sales need not replace the drugstore fountain's sales of bulk, but supplement them, he asserted—"If more ice cream is consumed in the home, more will be consumed out in the field."

The speaker offered for consideration a plan to preserve "the diginity of the dairy industry through sales of bulk ice cream" through drugstore outlets. It would bring into action a key committee of 20, drawn from International Association of Ice Cream Manufacturers, Ice Cream Merchandising Institute, Soda Fountain Manufacturers Association, National Association of Retail Druggists, DISA, and the trade press, to put a "personality ice cream story" before all operators of fountains.

Market Built Around Refrigerated Fixtures Capitalizes On It

SEATTLE, Wash. — "Telling the story of food refrigeration" by means of signs over cases in its new self-serve refrigerated area has focused public attention on this department of Stahl's Supermarket here and increased sales substantially.

The new store, remodeled from an ancient and somewhat shabby building, is "built around refrigeration," according to Sidney Stahl, owner.

During the first three months following installation of Friedrich custom-built self-service cases along an entire wall, sales increases averaged more than 60%, Stahl said.

The department includes a 20-ft. section for dairy products, 16 ft. for fruit and produce, 11 ft. for fresh and smoked meats, and 8 ft. for frozen foods.

Overhead signs give the operating temperature of the refrigerated units, the advantages of low-temperature preservation, and tips on refrigerator care in the home of the products displayed.

Directing public attention to the benefits of refrigeration in this way brought a 100% increase in milk volume, around 75% in vegetable sales, and about 35% in meat sales over the three-month period, Stahl reported.

Racca Picks 2 Speakers For Seattle Conference

CHICAGO—Following the pattern set at Miami last December, the Refrigeration & Air Conditioning Contractors Association will again participate in a joint program with REMA and RSES, according to National President George T. Howe.

RACCA will provide two speakers to appear on the Friday, April 24, session of the program in connection with the Educational Exhibit and Conference to be held in Seattle April 24-26.

Minor Baker of the Economic Research Department of the Seattle First National Bank, will talk on "The Business Outlook." He will touch on general business conditions and the need of proper business methods.

Richard M. Stern, mechanical engineer in heating, ventilating, refrigeration, and air conditioning, will speak on the subject, "Job Design and the Service Engineer."

Schiewetz New Plant Mgr. Of Trane Co. Eastern Div.

LA CROSSE, Wis. — Richard F. Schiewetz has been appointed plant manager of the eastern manufacturing division of the Trane Co.

The appointment was announced by R. J. Trane, vice president in charge of the division. The Trane eastern plant is in Scranton, Pa.

Before joining Trane, Schiewetz worked for five years with Delco Div. of General Motors and Servel, Inc.

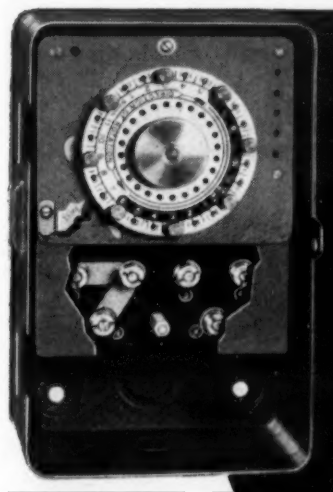
N. C. State Highway Bldg. Built for Air Conditioning

RALEIGH, N. C. — Construction is nearing completion on North Carolina's spacious new State Highway Building here. The structure will cost about $2,400,000.

Air conditioning units have been installed in all drafting rooms, chairman and chief engineer's offices in the new five-story building. Ducts have been installed in all other offices so that the entire building can be air conditioned in the future.

JUST ASK US!

Turn to "What's New" Page for useful information on new products.



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TWO RIVERS, WISCONSIN
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TD-360 Beverage Cooler "de-frost-it" can be used with all makes and most models of dry type coolers — helps maintain lower temperatures.

"de-frost-it"

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Time/Pressure Switches

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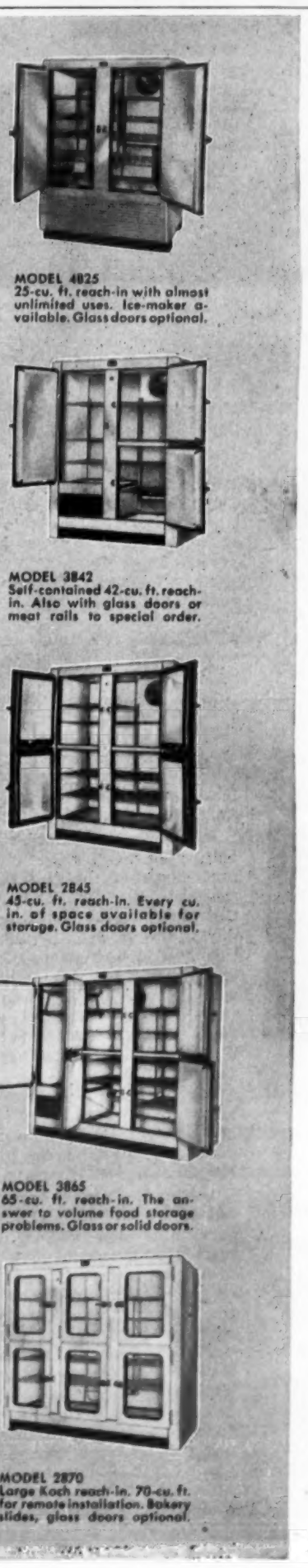

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Self-contained 42-cu. ft. reach-in. Also with glass doors or meat rails to special order.

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Large Koch reach-in. 70-cu. ft. for remote installation. Bakery slides, glass doors optional.

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Cooling Acid Electrolyte

'Ice Cel' Helps To Maintain Prescribed Temperature To Get Consistent Aluminum Oxide Coatings at Chicago Etching Firm

Commercial Refrigeration

CHICAGO—How a Dole "Ice Cel" is used in a "Freon" refrigerating system to cool acid electrolyte to obtain consistent and acceptable aluminum oxide coatings by the Alumilite process is described by the Chicago Thrift-Etching Corporation which uses such a system.

The system outlined here was engineered and installed by the Barco Refrigeration Co. of Chicago. It consists of three 15-ton Schnacke industrial compressors, each driven by a 15-hp. motor. Dole Refrigerating Co. "Ice Cel" water-chilling units are used in the installation.

"The art of anodic oxidation processing of aluminum and its alloys as practiced in the Alumilite process, or sulphuric acid method, depends upon proper cooling of the acid electrolyte if consistent and acceptable aluminum oxide coatings are to be obtained," Thrift-Etching states.

TEMPERATURE AFFECTS PHYSICAL CHARACTERISTICS

"Such physical characteristics of the aluminum oxide coating as resistance to abrasion, dye absorption, and oxide coating thicknesses are directly affected by the temperature of the electrolyte."

The company's description of the problem and its solution follows:

During the anodic oxidation treatment or Alumilite processing of aluminum and its alloys (the process is operated at approximately room temperature) a considerable quantity of heat is generated.

Because the temperature of the electrolyte must be maintained within definite prescribed limits, provisions must be made for the dissipation of this generated heat.

Otherwise, the temperature of the electrolyte will rise with the definite result of faulty anodic oxide coatings. Translated in terms of heat, the heat energy liberated during the processing is practically equal to the total electrical energy input.

Dissipation of the heat can be accomplished in two ways—

(1) by the circulation of either tap water or well water through the cooling coils. The former is not satisfactory because of temperature fluctuations of the tap water between the summer and winter.

The latter may give water sufficiently cold for the purpose, but the available volume may be inadequate for efficient cooling. The cost of sinking a well may prove entirely too expensive or impractical.

(2) The employment of an adequate and properly installed mechanical refrigeration system.

THERMOSTATIC CONTROL ENDS GUESSWORK

Based upon experience with this problem of heat dissipation, the mechanical "Freon" refrigeration system is best, particularly for large installations. By means of thermostatic control, all guesswork is eliminated and uniform operating temperature of the electrolyte is assured regardless of load size.

It is entirely possible to employ one compressor for each electrolytic processing tank, piping the compressed gas directly to the lead cooling coils located within the processing tank, and allowing the gas to expand within the coils, thus removing the generated heat.

The more practical way is to use an "Ice Cel" or heat exchanger in the system. With this type of system, the water in the cel is cooled to the desired temperature by the expansion coil in the cel, which is directly connected to the compressor battery.

The cold water is then circulated through the cooling coils in the processing tanks by means of thermostatically controlled circulating pumps and then returned to the "Ice Cel" unit for further cooling.

In the former method, the danger of such a system is that of leakage. Should a puncture in the lead cooling coil develop, the sulphuric acid electrolyte may, and it is quite possible that it will, enter the system and ruin the compressor.

In the latter system, should a leak develop, the possibility of the sulphuric acid electrolyte reaching the compressor is eliminated. Should a leak develop, the dilution of the acid from the water in the cooling coils and the "Ice Cel" would be sufficiently great to prevent any appreciable effect on the piping, the "Ice Cel," or the expansion coil, before steps could be taken to end the trouble.

Possible water leakage into the gas line or the compressors from the "Ice Cel" is most remote and should it happen, there is little danger of ruining the compressor.

Furthermore, the function of the "Ice Cel" permits the building of a "cold" backlog during the off peak hours, which permits the use of less power input per unit of operation than does the former system, which employs the directly connected compressor.

Originally the refrigeration system employed consisted of three 15-ton units, each serving a specific tank. The liquid was pumped directly to the specific tank, expanded within the lead cooling coils and the gas returned to the compressor.

On several occasions, and as it always does when the work load is heavy, one of the compressors would "conk" out. The net result of this occurrence was simply the shutting down of the processing tank served by the disabled compressor until repairs could be made. The shutdown may last eight hours or 40 hours—but it was, nevertheless, a period of no output for the tank in question.

STICKING EXPANSION VALVES OFFER PROBLEM

Another problem with this type of system is the sticking of expansion valves brought about by corrosive fumes attacking the working parts of the valves. Fumes are always present in a plating room, or an anodic oxidation processing room, regardless of the care exercised to remove those fumes; yet those minute fume traces will caust trouble.

To eliminate the occasional lost production periods because of compressor breakdown, and to eliminate refrigerant control valve corrosion problems, and to eliminate the danger of the acid electrolyte, because of leaks reaching the compressor, the intermediate heat exchanger or "Ice Cel" was installed.

But there was another reason for employing the "Ice Cel" unit. Calculations disclosed the fact that through the use of the "Ice Cel," and because the "cold" load could be built up during the off peak period, the power input could be reduced 33⅓. Stating it another way, 30 tons of refrigeration capacity are now doing the work that formerly required 45 tons. In fact, 15 tons will carry the entire plant for a reasonable period of time under full load.

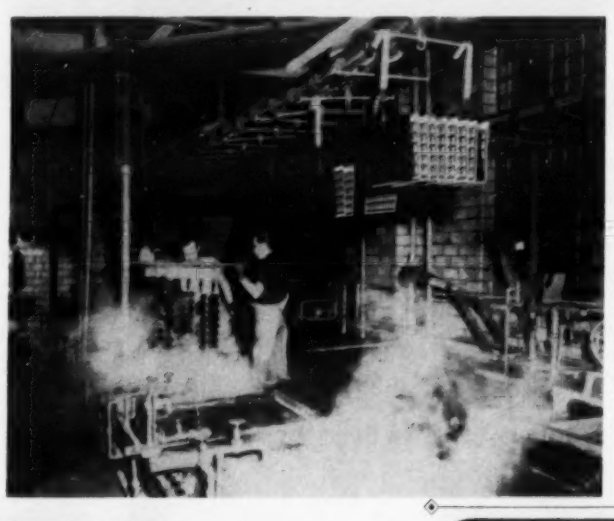
By employing lighter loads, a 15-ton unit would carry the continuous refrigeration requirements without undue strain upon the compressor. The "Ice Cel" permits flexibility.

During the normal operation, should one of the two 15-ton compressors in service develop trouble, it is only a matter of a few minutes before the disabled compressor can be cut out of the system and the spare cut into the system. This is done without the slightest disruption of production.

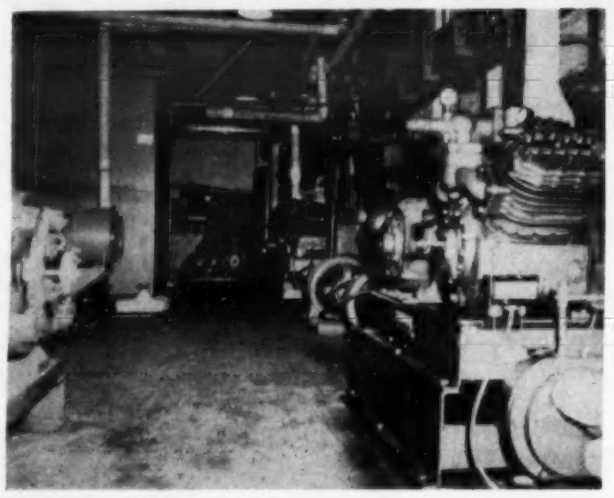
The refrigeration system described here consists of three 15-ton Schnacke industrial "Freon" compressors, each driven with a 15-hp. motor. The refrigerant is piped to the "Ice Cel" and thermostatic controls operating the compressors maintain a temperature of the cooling water in the system of between 34° F. and 40° F.

Each anodic processing tank is tied in with a thermostatically controlled circulating pump, and whenever a processing tank requires cooling, the circulating pump connected to the particular tank swings into action and circulates the cold water from the "Ice Cel" to the processing tank and back to the "Ice Cel."

The processing tanks served in this manner total over 5,000 gal. of sulphuric acid electrolyte—yet by means of the circulation of cold water and at full load, the temperature of the electrolyte is maintained at plus or minus 2° F. at an operating range of 70° on the one tank and plus or minus 2° F. at an operating range of 76° F. on the remaining two tanks.



PROPER COOLING OF THE ACID ELECTROLYTE is necessary to obtain consistent and acceptable aluminum oxide coatings by the Alumilite process, and the Chicago Thrift-Etching Corporation makes use of a mechanical refrigeration system especially designed for this purpose in its operation. Shown in this picture is the "color line," where two 13-ft. Alumilite processing tanks are in service.



EQUIPMENT ROOM in Chicago Thrift-Etching Corporation plant includes three Schnacke 15-ton compressors, Dole Refrigerating Co. "Ice Cel" water chilling units (left background), and thermostatically controlled pumps which circulate water to the processing vats. Advantages in using this kind of a system for the particular application involved are pointed out in the article.

Acceptance in the field is rapidly changing to "Demand" for these efficient, more economical Cleanable water-cooled Condensers. Owners and service men prefer the "new unit" efficiency that can always be maintained by a simple cleaning process. Brass headers, machined and brazed.

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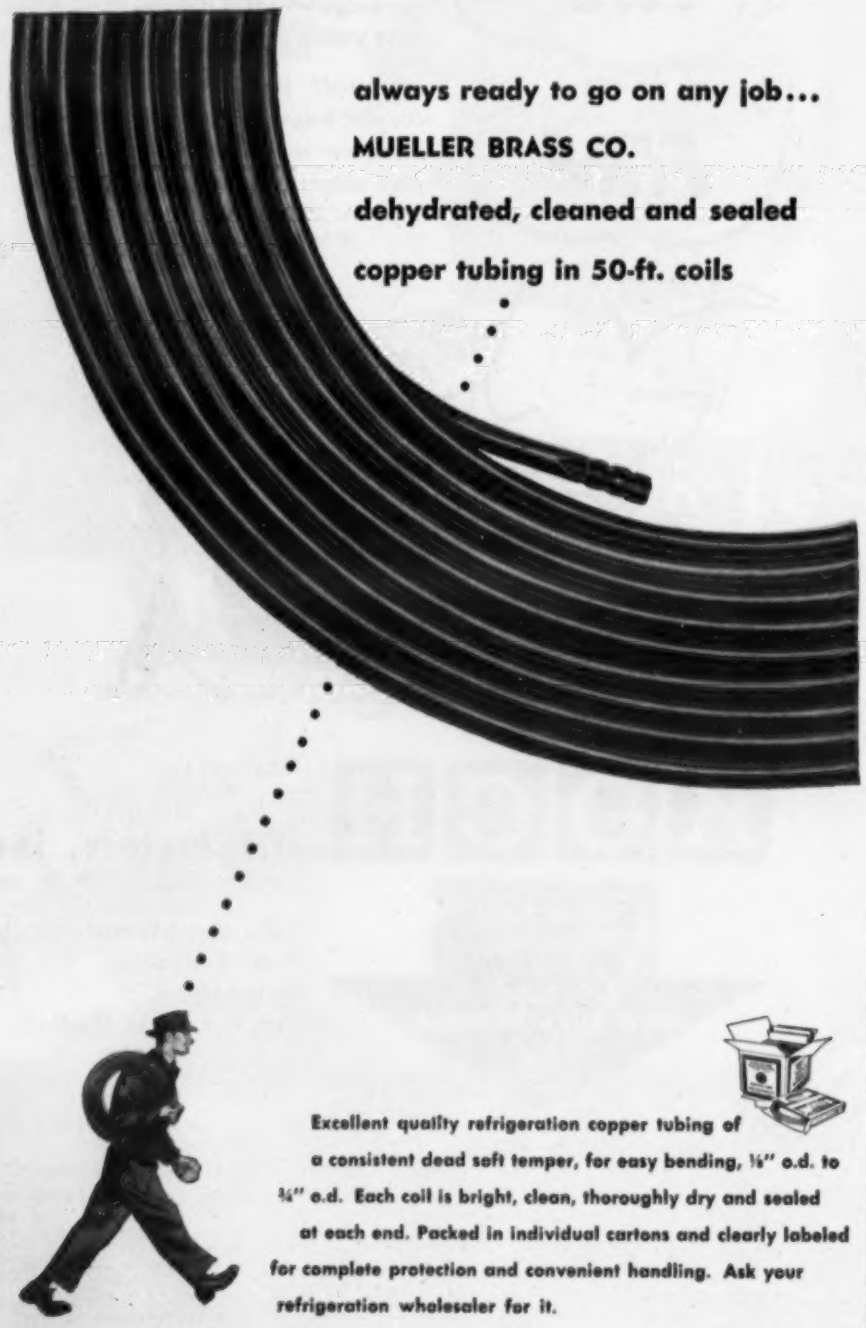

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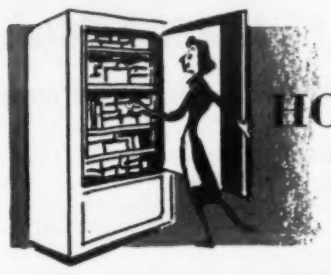
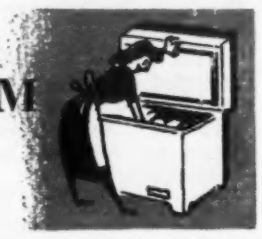


HOME & FARM FREEZERS



Freezer Food Plan Sales Presentation Offered To Members of Locker Institute

ELIZABETHTOWN, Pa. — A freezer-food plan sales presentation is now being offered to its members by the National Frozen Food Locker Institute, Robert L. Madeira, executive secretary of the Institute, announced recently.

"There's nothing fancy about the presentation," Madeira said, "but it is a sales plan that is clicking well here in central Pennsylvania."

The presentation was prepared by Madeira, who operates the Iceland, Inc. locker plant here; Robert Kline of Susquehanna Lockers in Sunbury, Pa.; and Charles Rupp of Lemoyne Ice & Cold Storage, Lemoyne, Pa.

The presentation is actually a script for the freezer-food plan salesman. It tells him what to do and gives him a complete canned sales talk, covering the food plan story from beginning to end.

According to this presentation, the first thing the salesman does, after he gets the family seated around the kitchen table, is to show them his bonding letter from the insurance company. This is to build up prospect confidence that he is a reputable salesman.

He presents the freezer-food plan as a new way of life for the family, carefully explaining the development of frozen foods, their advantages, their convenience, and their economy. He then tells how the food plan works, how money savings are realized, and, finally, cites examples of the many conveniences the home freezer offers.

One convenience mentioned in this presentation that is not usually found in others is the freezing and storage of eggs. Here are the instructions: "Break eggs in ice cube tray. Stir each slightly. Remove and package in plastic bag. Take out for cooking, baking, and omelettes, as needed."

The salesman then goes into the cost of the freezer and the plan, pointing out that the freezer will pay for itself in about three years.

When the salesman first starts his presentation, he sets a bottle of vitamin pills on the table and mentions that he will explain their presence later.

At the conclusion of his presentation when the order is signed, he picks up the bottle and says:

"Remember these? How much do you spend a month on vitamin pills? Well, now you can throw the bottle away, quit buying the pills, and save $ . . . more every month."

JUST ASK US!

Turn to "What's New" Page for useful information on new products.

Deepfreeze Guide Covers Its Freezer Food Plan

NORTH CHICAGO — A guide for planning and administering a local freezer-food plan has been developed by sales executives of Deepfreeze and is being made available to all authorized Deepfreeze home appliance dealers.

The guide is available to dealers through Deepfreeze distributors only, according to J. Reynolds Carey, manager of home freezer sales.

Complete in every respect, the attractively bound book narrating the plan consists of 24 "fact-packed" pages, gives the dealer a step-by-step program for setting up the plan, shows samples of the different forms necessary for orderly administration.

Among the many details of a successful freezer-food plan which the new Deepfreeze publication considers are the choosing of food supplies, financing, selection and training of freezer-food plan salesmen, selling the plan to homemakers through advertising and word-of-mouth leads, and sales contracts.

The appendix of the book deals with such subjects as the proper method of building popular food assortments. It contains suggested printed forms the dealer can use for administration of the plan.

The foreword to the new publication points out that Deepfreeze made an exhaustive study of all the phases of existent freezer-food plans, discarding all elements of a questionable nature and analyzing and condensing all the worthwhile phases of various succtssful plans.

Feed Store Stocks Meat In Freezer For Dogs

ROXBOROUGH, Pa.—When regular feed sales started to fall off, the Roxboro Feed Co. here began to stock a full line of pet supplies and foods. Sales of foods, especially frozen dog foods have more than offset the original feed loss. This was made possible because Owner Charles Donley added a large home freezer to his store.

"For many years we have been selling feeds and related products to many farmers in this area," Donley said. "But with a lot of new building starting around here, the back yard flock raised and the farm owner who had some cows or horses had to move away. This meant lost business.

"As more building came this way, I felt that our feed sales were becoming a side-line rather than a main line with us, so I had to do something to bolster up sales."

To offset feed losses, Donley began to add pet supplies to his store. This included a complete supply of foods as well as merchandise items. Naturally the dog trade got the bulk of this change-over consideration.

When a few customers asked at Roxboro for frozen horse meat, the store owner made some special deliveries. This was a costly way of operation, yet the profit in these sales was worthwhile. So in order to stock more dog food, he acquired a home freezer for frozen horse meat.

"Our frozen dog food business has grown so rapidly since we installed this freezer that we will either install another one or replace it with a larger freezer," says Donley. "We have attached a large price sign on the end of this unit so that it faces the doors, and any customer coming in sees it. This helps sales."

CHARLES DONLEY stocks his freezer with dog foods. Price list on end of cabinet attracts attention.

Since the installation of this case, Donley has started a frozen dog food delivery route. Any customer that buys this food more than once a week can have Donley make regular deliveries. He has developed this route so that he has a steady driver making five-day a week deliveries (and a handsome profit).

"We are making more money with frozen dog food than we did on sacks of chicken feed," says Donley, "and it was a freezer that let us."

Wilson Names Exclusive Outlets In Rochester, N.Y. And Spartanburg, S. C.

SMYRNA, Del.—Aubrey A. Davis, general sales manager of Wilson Refrigeration, Inc., has announced the appointment of two new exclusive distributors who will market the new 1953 line of Wilson home freezers in Rochester, N. Y., and in Spartanburg, S. C.

Gilbert Distributing, Inc., of Rochester, will handle the line in the Rochester area. The sale of Wilson freezers will be directed by Richard C. Gilbert, who was formerly associated with Stromberg-Carlson.

In Spartanburg, S. C., Montgomery & Crawford Co. will merchandise the line through their Spartanburg office as well as through their branch in Aiken, S. C. The Wilson campaign will be handled by Henry T. Bourne, president of the company.

1953
"BLUE BOOK"
The Nationally Recognized ILLUSTRATED Book of Refrigerator Trade-in Values
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INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

I own this car but I can't drive, so this guy here," and a thumb indicated the red-light runner, "he drives me to work every day, but he is such an awful driver I don't dare watch so I put a blanket over my head."

Philosophy of the Week

Lord Haldane's autobiography describes his happiness during a six weeks' period when he was engaged to a woman he deeply loved. Then she broke the engagement without any explanation. He says his only attitude was one of profound gratitude to her for "that perfect six weeks." If you can be thankful for past happiness without becoming bitter because it was snatched away, you have discovered one of the secrets of victorious living.—*Treasures.*

Have you ever noticed how we try to convince ourselves with little lying phrases? "As a matter of fact," we say, when about to produce a piece of fiction. "To tell you the absolute truth" is the prelude to something verging on a lie. When a person says, "To be perfectly exact," the information which follows will be unreliable. When they say "I always think," you can be sure that the idea has just that second occurred to them. "I hate to have to tell you, darling" means that I have the greatest pleasure in telling you something unpleasant. "To be perfectly candid" and "to be absolutely frank" mean that one is going to be rather unpleasant, but not as fully unpleasant as if one were perfectly candid or absolutely frank.—TYRONE GUTHRIE.

What Labor Politicians Will Push For This Year

Fringe benefits—which comprise America's gigantic hidden payroll—will be the big union objective this year and next, rather than wage increases. That forecast is made by Richard P. Doherty, former member of the Wage Stabilization Board, and now a labor lawyer.

Doherty avers, "There is grave danger that a runaway expansion in fringe benefits will get under way in 1953 and do considerable damage to our economic system."

He refers particularly to such fringe benefits as health, "welfare," and pension plans. Coal mining, electrical construction, and several other industries already have union-sponsored "buy dollars for delivery sometime in the distant future" plans of that nature. And more unions will try to muscle into the welfare fund, insurance, and pension business, Doherty forecasts. There's money in it for union treasuries!

Such plans are expensive both to the company and *to the employe.* Truly they should be adapted reasonably to the economic situations (money-on-hand and in sight) of individual companies rather than according to "'standard" patterns set up for nationwide industries and huge corporations.

Smaller companies, Doherty points out, will be damaged particularly unless unions recognize ability-to-pay-and-survive *differences* — especially over a long period of time.

"A great array of fringe benefits is already on the books of American companies. For most small firms to adopt even a moderate portion of prevailing fringes would add a staggering labor cost to their usually thin-edge operations," he observes. Such costs could close up firms and throw people into the unemployed group.

Doherty notes that a study of fringe benefits showed, in 1951, the average cost for the average company was 18.5 per cent of payroll, or $644 per year per employe. Big corporations can take it; many little ones can't.

Boondoggle Beaten

A year-long battle to rescue Stark County, Ohio, from the Federal government's list of critical defense housing areas has been won by businessmen in the cities of Canton, Alliance, and Massilon.

Government bureaucrats capitulated after being bombarded by facts and figures supplied by Ohio business leaders to their Congressmen.

This STARK case demonstrates what a patriotic group of aroused citizens can do in terms of mobilizing public opinion against government interference in local affairs. Here's the record:

After rent controls had ended in Massilon, Federal officials monkeyed around until they felt like certifying Stark County as "critical."

Primarily, this bureaucratic decree was based on the Department of Labor's contention that 8,000 immigrant workers had moved into Stark County between May, 1950 and Sept. 30, 1952.

That didn't check at all with figures collected by local businessmen. So the local entrepreneurs Raised Cain. And put a chunk under it. They were heard, and rewarded for conscientious persistence.

Their victory over the bureaucrats, which was supported by Senators Robert A Taft and John W. Bricker of Ohio, saved Stark County from Federal construction of Sad Sack Shacks which would have degraded every home "neighborhood" thereabouts. Further, that "critical" tag, if the Federals had been allowed to continue applying it, would have impeded the flow of defense contracts into Stark County.

"You, too, etc."

Labor Story of the Year

Maybe it was the crisp, healing air of famed health resort Saranac Lake that did it. Anyway, the "little City in the Adirondacks" seems to have come up with an outstanding labor-management story.

Here's the way Philip G. Wolff, president of the Saranac Lake Chamber of Commerce tells it:

"When Thomas Harrington, business agent for the local A. F. of L. Carpenters' Union, learned that a long overdue alteration project for the local Chamber offices had to be omitted from our budget for another year, he consulted with his union members.

"The next day Mr. Harrington volunteered that, inasmuch as the Chamber was organized and working for the improvement and development of the community, the union would like to make a contribution in the form of labor and material for the entire job of altering Chamber offices.

"As a result, the union members sacrificed four Saturdays (usually time-and-a-half days) to do the job at no cost to the Chamber of Commerce."

When the project was done, Wolff and Harrington issued a joint statement. It prescribes a cathartic for labor-management ills with which most loyal readers of this "colyum" will agree 110 per cent. Quote:

"Labor and management throughout the country can enjoy this type of relationship if they will only keep in mind that they are both working for the good of the entire community."

New England Bank Offers Charge Plan to 36 Firms

BOSTON—Thirty-six retail outlets in the Quincy-Weymouth area are now subscribing to a new charge account service offered by Norfolk Trust Co., according to bank officials.

Operation of the service—said to be the first of its kind in New England—was described as follows: The bank issues charge cards to consumers with satisfactory credit ratings upon application by the consumer. The latter may apply for a card at a participating store or at the bank.

The card can be used at any member store to charge purchases. The store can extend credit on purchases of $10 or less. Bank approval is required on sales totaling more than that amount.

Purchases are recorded on special triplicate sales forms furnished by the bank. The customer signs the forms which, in effect, constitute a draft, signed over to the bank by the merchant.

Stores deposit their sales slips daily with the bank, less a 5% discount—the bank's service charge. If merchandise is returned, the bank's charge is refunded.

The bank is informing Quincy-Weymouth residents of the service via newspaper, radio, and direct mail advertising. It expects to extend the service to other suburban areas in the future.

Similar plans are reported in operation in Long Island; Kalamazoo, Mich.; Rochester, N. Y.; Paterson, N. J.; and Washington, D. C. Some 13,000 accounts were said to have been opened in Washington in the first three months the plan was in effect there.

Lowlow, Berke Appointed By Cincinnati Distributor

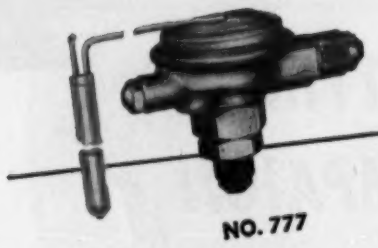
CINCINNATI — Appointment of Jack Lowlow as general sales manager of Deepfreeze Distributing Corp. here is announced by Robert J. Jacobson, president.

Lowlow has been a sales representative for Deepfreeze for two years. Jacobson also made known the appointment of Leonard Berke as assistant manager of the appliance division.

Simplify Buying and Inventory

DEAL with DETROIT

and take advantage of ONE convenient source for EVERY expansion valve need!

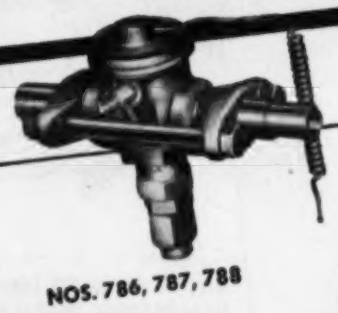


NO. 777

- Adjustable superheat
- Available with C, Z, or standard liquid charge
- Capacities—½ to 2 tons Freon-12
- Stainless steel and brass throughout
- Easy superheat adjustment
- Anchored capillary
- Interchangeable inlets ¼ and ⅜ S.A.E.
- Cartridge assembly simplifies cleaning
- Available with equalizer connection

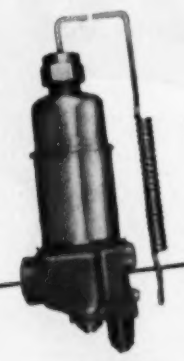
DETROIT Thermostatic Expansion Valves—The Standard of the Industry—are widely accepted by refrigeration men everywhere. You'll find that DETROIT offers a superior valve for every job—each designed for easier installation, longer service and more efficient operation.

Try them on your next job—we're sure that you, too, will find them easier to work with and more profitable because of fewer call-backs. See your DETROIT wholesaler today.



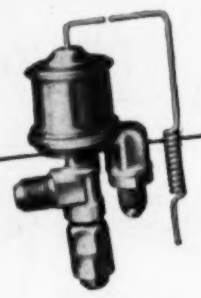
NOS. 786, 787, 788

- Adjustable superheat
- Gas charged for air conditioning applications
- Liquid "Z" charge for low temperature use (786 and 787)
- In-line connections
- Capacities 2 to 25 tons Freon-12
- Capacity easily changed on the job
- External equalizer connection



No. 673

- Adjustable superheat
- Stainless steel needle and seat
- Gas charged for motor overload protection and quick response
- Duraflex bellows resist corrosion and insure long, trouble-free service
- Monel inlet strainer
- Hermetically sealed joints
- ⅜ S.A.E. inlet, ¼ F.P.T. and ½ S.A.E. outlet
- Capacities—1.2 to 3.6 tons Freon-12



No. 573

- Adjustable superheat
- Gas charged for motor overload protection
- Stainless steel needle and seat
- Hermetically sealed joints
- Monel inlet strainer
- Forged brass body
- ¼ or ⅜ S.A.E. inlet, ¼ F.P.T. or ½ S.A.E. outlet
- Capacities—½ and 1 ton Freon-12

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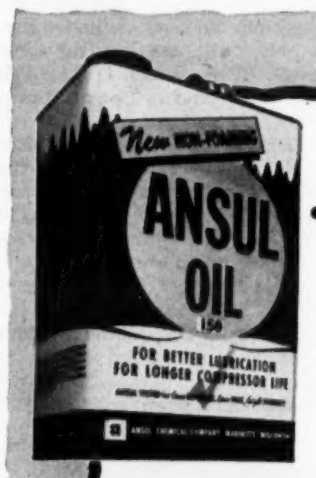
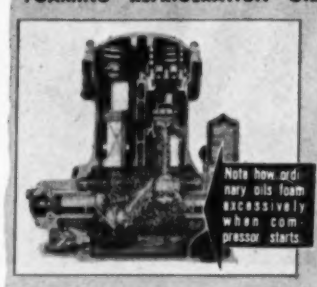


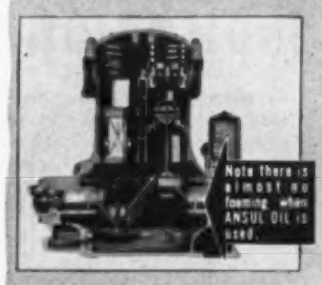
...More Than Ever...

THE FINEST REFRIGERATION OIL ...at any price!

ANSUL NON-FOAMING REFRIGERATION OIL

SEE THE DIFFERENCE BETWEEN ORDINARY OILS . . . WHICH FOAM . . . AND ANSUL NON-FOAMING REFRIGERATION OIL.





When a compressor starts, the surge of the refrigerant causes ordinary oils to foam. This results in a loss of oil from the compressor and causes other harmful effects in the system. ANSUL NON-FOAMING OIL eliminates the problems which result from foaming and thereby insures maximum lubricating efficiency.

NOW . . . MORE THAN EVER . . . ANSUL is the FINEST REFRIGERATION OIL *at any price!* In addition to the features which have made it outstanding in the past . . . *High Lubricity, High Stability, Low Moisture* and *Low Wax . . . a new and vital improvement has been made* . . . ANSUL OIL IS NOW PROCESSED TO PROVIDE NON-FOAMING CHARACTERISTICS . . . a distinct advancement in the science of refrigeration lubrication.

Here are some of the advantages provided by the NON-FOAMING characteristic of ANSUL OIL:

- INSURES MAXIMUM LUBRICATION.
- IMPROVES EVAPORATOR EFFICIENCY.
- PREVENTS DAMAGE TO COMPRESSOR VALVES.
- REDUCES DANGER OF PLUGGED CAPILLARIES.
- REDUCES DEPENDENCY ON OIL SEPARATORS.

Ansul Refrigeration Oils have been machine tested for over 4500 consecutive hours.

ANSUL is the LARGEST SELLING REFRIGERATION OIL sold through Refrigeration Wholesalers . . . EXCLUSIVELY.

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New Kelvinator Window Unit Conditions 300 Ft. Area, Has 6,000 B.t.u. Rating

Kelvinator Model RAC-60

DETROIT — Kelvinator has announced addition of a second model to its line of air conditioners.

The new model, RAC-60, is a companion to one announced earlier, RAC-80.

The latest unit has a ½-hp. sealed unit, a rating of 6,000 B.t.u. an hour and moisture removal capacity of 1¾ pints an hour.

Styled in decorator tones of tan and brown, model RAC-60 is 28 3/16 in. long 24 1/16 in. wide, and 3⅛ in. high. The unit projects 9½ in. into the room and will condition approximately 300 sq. ft. of area, it is said.

The larger model is 33¾ in. long, 26½ in. wide, and 13⅜ in. high. It will condition approximately 450 sq. ft. of area with its ¾-hp. sealed unit and rating of 8,000 B.t.u. an hour.

The moisture removal capacity is 2½ pints an hour.

Mounting on both conditioners is simple and can be installed easily from inside the room. A brace holds the unit to the outside wall for safety and no screws are required, either for the sill or outside wall. The controls for variable speed, fresh air, and exhaust are located on the front panel where they are easily accessible.

Suggested retail price of model RAC-60 is $329.95.

Coolerator Room Cooler Display Has Flasher Light And Streamlined Stand

DULUTH, Minn. — A complete room air conditioner point-of-sale display combining a light-action flasher display and a rugged, streamlined stand is a highlight of the 1953 Coolerator room air conditioner advertising and sales promotion program, it was announced by N. C. Sabee, manager of advertising and sales promotion of Coolerator Co.

Easy to set up, the display stand is rigidly constructed of chromium-plated steel tubing and neutral green wooden braces to accommodate over 275 lbs. Silk screened on the front panel is display copy reading "Get Cool, Keep Cool, Sleep Cool with a new low-cost Coolerator."

The flasher portion of the display placed on top of the Coolerator room air conditioner cabinet, portrays a north woods setting with light-action copy traveling across the sky reading, "Cools, Circulates, Dehumidifies, Purifies, Exhausts."

The complete display and stand combination is light weight and measures only 23¾ in. wide and 33¼ in. deep, occupying a minimum of floor space. The Coolerator room air conditioner is placed at a convenient height, just 31 in. from the floor.

The display is said to be ideal for dealer showroom floors, display windows, display booths, at fairs, exhibits, home shows, and at sales meetings.

Mitchell Air Conditioning Promotional Kit Has 3 Direct Mail Pieces for Early Spring

CHICAGO—The most extensive air conditioning promotional kit it has ever offered dealers and distributors has been introduced by Mitchell Mfg. Co. here, it was announced by Howard Haas, advertising and sales promotion manager.

The package contains dozens of ideas for advertising, publicity, and point-of-sale displays illustrating features of the 1953 line of ⅓, ½, ¾, and 1-hp. models.

The kit presents a ready-made sales story for the distributor to tell dealers, and which the dealer, in turn, can use to sell customers.

A "new approach" to the use of direct mail to sell room air conditioners is Mitchell's timed direct mail campaign. The program consists of three separate mailers to carry the dealer's name and the story of the Mitchell room air conditioner directly into the prospect's home.

Suggested for use over a three-week period in late spring, the promotion is flexible and can be used at the dealer's discretion. Each separate mailer is designed to bring customers into the store by offering a pair of utility tongs as a gift premium.

A series of newspaper mats are illustrated presenting a cooperative advertising plan to help the dealer time his promotions by offering ads to be used both early and late in the season, including special copy for hot spells. The ads are to be placed by the dealer on a "temperature release" basis as the local weather dictates.

Illustrations of eye-catching store displays also are geared to four-seasons promotions. They include "Frostie, the Mitchell snowman," to be used as part of a summer store trim, as well as attractive floor displays that tell the Mitchell story with light and motion, and provide space in which the actual unit can be demonstrated.

Tailored to home sales is the Mitchell "Weath'r Dial" carrying case, which the salesmen can use to show prospects now to operate the one-knob motor control.

Especially featured in the package is a group of pamphlets, booklets, and envelope stuffers that can be used to sell Mitchell during the entire year. One piece is a new two-color booklet cut in the exact shape of the Weath'r Dial. This booklet unfolds the step-by-step story of the four seasons' uses of the Mitchell air conditioner.

Another item is a point-of-purchase flip chart in three colors which tells the Mitchell story in simple terms.

Geared to the hottest seasons are two booklets, "Heat and Your Health," and "A Midsummer Night's Dream."

The health pamphlet, enlivened by two-color illustrations and an easy-to-read narrative, is a 12-page story based on scientific research which proves that a rise of the thermometer to 75° or higher forces the heart to work overtime to maintain a normal body temperature.

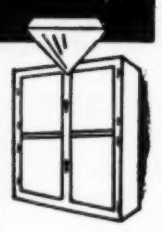
FABLE OF TYPICAL CUSTOMER

"A Midsummer Night's Dream" is the fable of typical customer Joe Smart, and how he was convinced one hot summer day that he could have summer comfort for a fraction of the amount he spent on winter comforts for his home.

Also designed to sell Mitchell's line throughout the year are publicity releases, full color specification sheets, and window and counter streamers. To help the dealer make the most of this material, the package includes a chart on which he can check the course of his promotional campaign.

A special kit covering a distributor-dealer direct mail promotion is also part of the Mitchell selling pieces. It is aimed at helping to sell industrial accounts, hotels, and motels.

IT'S A GEM!



Dealers and users are excited about Gem Refrigerators . . . custom features, competitively priced, by a maker 30 years in the business. It's a terrific deal!

Rich, New Territories Open. Write today!

GEM REFRIGERATOR CO.
165 W. Wyoming Ave., Phila. 40, Pa.

Redmond
MICROMOTORS
One of largest stocks outside factory!
FACTORY DISTRIBUTORS
CYCLO-FREEZ CORP.
MARVIN L. "FERGIE" FERGESTAD
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GENERAL ELECTRIC
Tunnel-Type ½ Ton Units
Model Css 231B1B Low Temp.
For expansion valve—2 cyl.
NEW and in original cartons
PRICE—$56.00!!
Freight Prepaid on Orders of five or more units
VINCENT REFRIG. & HTG. SUPPLY CO.
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Illustrates, Describes, Prices
Over 9,000 REFRIGERATION
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Yes, get it and save money!
Write Now to
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HARRY ALTER gives you snappy service!

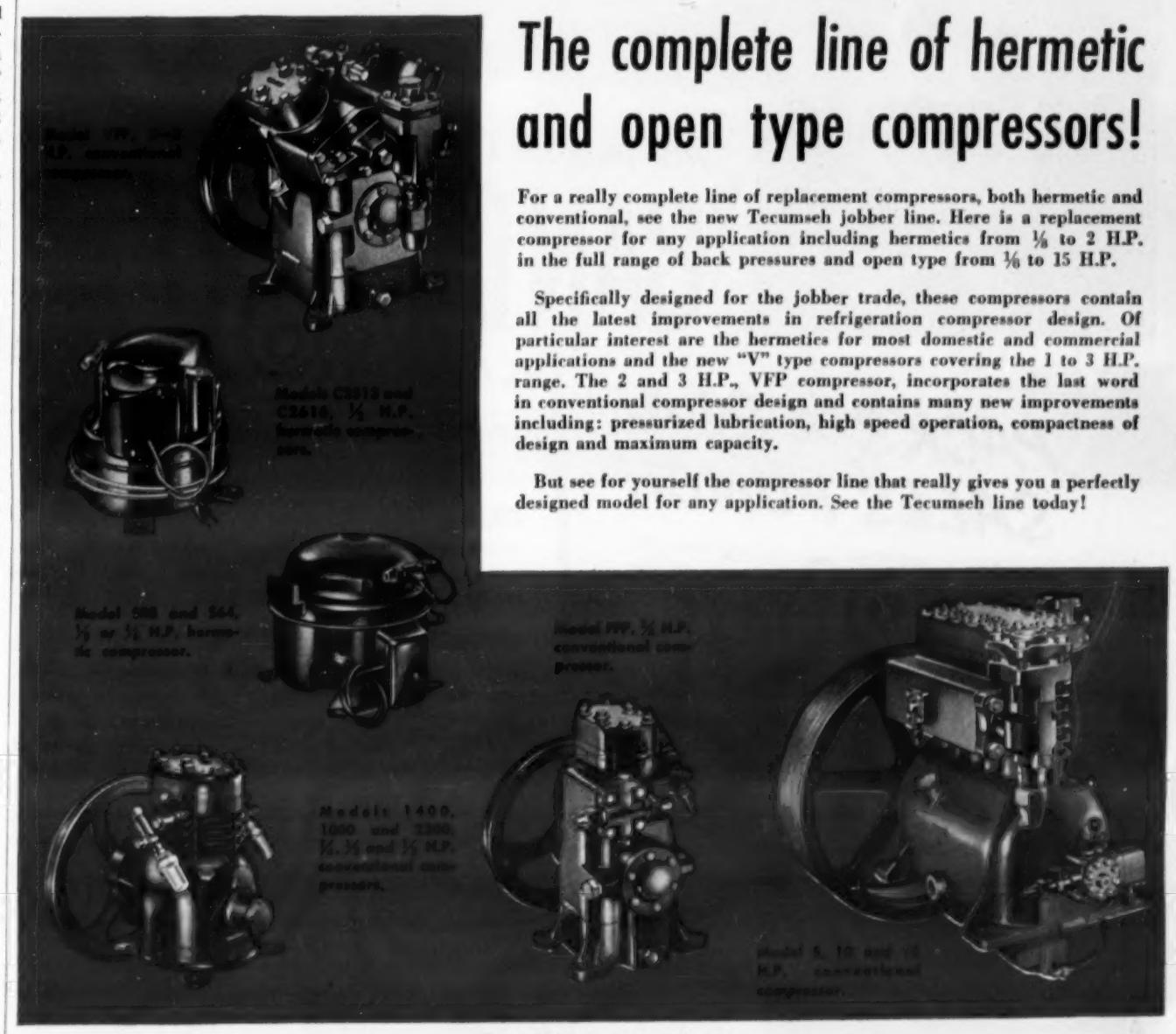
Now There is a
Tecumseh
COMPRESSOR FOR ANY
REFRIGERATION APPLICATION

The complete line of hermetic and open type compressors!

For a really complete line of replacement compressors, both hermetic and conventional, see the new Tecumseh jobber line. Here is a replacement compressor for any application including hermetics from ⅛ to 2 H.P. in the full range of back pressures and open type from ⅛ to 15 H.P.

Specifically designed for the jobber trade, these compressors contain all the latest improvements in refrigeration compressor design. Of particular interest are the hermetics for most domestic and commercial applications and the new "V" type compressors covering the 1 to 3 H.P. range. The 2 and 3 H.P., VFP compressor, incorporates the last word in conventional compressor design and contains many new improvements including: pressurized lubrication, high speed operation, compactness of design and maximum capacity.

But see for yourself the compressor line that really gives you a perfectly designed model for any application. See the Tecumseh line today!



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EXPORT DEPT.: 2111 WOODWARD AVE., DETROIT, MICH.

★ The world's largest producer of condensing units for the refrigeration industry. ★

They'll Do It Every Time . . . . By Jimmy Hatlo

OH, MISS POTHOOK··· I'LL BE AT THE CLUB. I'M HAVING LUNCH WITH THE MAYOR. IF DARRYL CALLS, TELL HIM I'LL CALL HIM BACK··· NO··· TELL HIM TO CALL ME AT THREE O'CLOCK··· MIGHT TELL HIM ALSO TEN G'S ISN'T ENOUGH ON THAT DEAL! TELL MY WIFE I'M BRINGING HEDY AND PANDRO HOME TO DINNER····
BIG NOISE, THE NAME-BOUNCER, IS AT IT AGAIN··· THAT CLUB OF HIS IS A WIRE ROOM AND THE MARE IS A HORSE····
HEDY AND PANDRO, MY FOOT! IF HIS OLD LADY HAD ANY FOOD IN THE HOUSE SHE'D EAT IT, HERSELF···
BUT DID YOU NOTICE HIM WHISPERING TO ME OVER AT THE WATER COOLER? HE PUT THE ARM ON ME FOR TWO BUCKS··
WHO'S HE TRYING TO IMPRESS? THE ONLY TIME HE'LL SEE TEN G'S IS IN A BOWL OF ALPHABET SOUP!
JIMMY HATLO
1-2
LISTENING TO THE BIG MAN YODEL LONG-DISTANCE ABOUT HOW IMPORTANT HE IS····
THANX AND A TIP OF THE HATLO HAT TO "JOE," RKO PICTURES, NEW YORK, N.Y.
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Have You READ *'Peace and Progress'* Yet?

MEET THE
NEW CHAMP
The MIGHTY TEMPRITE
"BANTAM 100"
CARBONATOR
PACKS A REAL SALES PUNCH
Weighs 28 lbs.
13½" long x 9½" wide x 12" high.
BANTAM
FULLY AUTOMATIC, delivers up to 100 gallons per hour of highly carbonated water . . . for a sparkling beverage that's a pleasure to serve and a double-pleasure to drink! Use with any type cooling system.
COMPACT, easy to handle! Little space required. Pump and motor, relay and carbonator assembled together for the simplest possible installation.
SAVES REAL MONEY, because of high-capacity operating efficiency, plus other cost-conserving features!
BIG ACTIVE MARKETS FOR YOU! Soda fountains, roadside stands and drive-ins, restaurants, bars and taverns, home recreation rooms and vending machines—they're all ready for Temprite's mighty power-packed "Bantam 100"!
Since 1929
Temprite
PRODUCTS CORPORATION
BIRMINGHAM, MICHIGAN
Self-Contained Water Coolers
Remote Water Coolers
Carbonators
Control Valves
Instantaneous Liquid Coolers
Oil Separators
Beer Coolers
TEMPRITE PRODUCTS CORP.
P.O. Box 72-A
Birmingham, Michigan
☐ Send me data on the Temprite "Bantam 100" Carbonator.
☐ Ask your representative to call.
Name
Address Zone
City State

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AIR CONDITIONING AND REFRIGERATION News

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"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—*Charles A. Dana.*

Our Fight For Sane Methods Should Not Slacken

NOW that businessmen are cashing in on a national upsurge of optimism—following Eisenhower's triumph—too many people are assuming that the millenium has arrived. And that we can slow down our efforts to restore national stability.

Such "foolish virgins" are relaxing on their haunches, and expecting all the ills of our political and social system to be cured automatically without any further effort on the part of conscientious citizens.

How unrealistic can we get?

The preservation and restoration of those principles and practices which are vitally necessary for a free people in a free nation are not yet assured—not by a long shot.

Our situation, as it now stands, is simply this: the Door of Opportunity, which almost shut in our faces, now is swinging wide again—*to men and women who are willing to work extra hard.*

We who believe in the free enterprise system have a bigger obligation than ever before. Resumption of opportunity for businessmen is wonderful, great, and satisfying. But it is not an end in itself. It is a challenge to our ingenuity, perspicacity and patience.

We must end for all time the delusion that conservatives want depressions!

If we do not take advantage of this chance to prove we can carry the ball forward, we shall have gained little. We could even lose what we've won. Furthermore, we shall be traitors to the cause for which we fought.

As has been true throughout economic and political history, the victors can profit well from the example of losers. We do not have to study history to find an example. We can learn from a dolorous case right in front of our eyes—that of Great Britain.

It is possible that Socialism could have been prevented in England. If businessmen had looked up from their balance sheets, and tried to influence public opinion, things might have been different. However, entrepreneurs did not provide this support for politicians and publicists who pled their cause. As a result, business groups were overwhelmed by socialistic forces. The latter fastened glum mediocrity on a once-great nation. Even if the Conservatives stay in power another decade they may be unable to undo the damage.

You see, after the Conservatives got back into office, proponents of the free enterprise system thought that their work was finished. They assumed that they could go back to work again undisturbed.

But what happened? In brief, the people of Great Britain learned that it is much easier to nationalize industries than to denationalize them. Also they learned—the hard way—that it is difficult to cure voters of the "government'll-take-care-of-you" dope habit.

Either the supporters of business enterprise did not take advantage of the opportunity thus presented to them to state their case succinctly and winningly—or it is true that a nation which remains under Socialism too long is beyond redemption. In London it is generally agreed that if another election were held now, the Socialists probably would win.

Wholesaler's Countermen Use Addressograph Plate File for Accuracy, Credit Check

FLINT, Mich. — Guesswork and possible embarrassment in determining the credit standing of customers at the counter have been eliminated by Lifsey Distributing Co., wholesaler of parts for the refrigeration, air conditioning, washer, range, television, and radio fields here.

In addition, the credit control system also prevents mistakes in addresses or in charging the wrong account where similar company names are involved, points out A. B. Lifsey, head of the firm.

Actually, the system is rather simple and depends on use of Addressograph mailing plates, which most wholesalers and many other firms use for addressing direct mail advertising. The plate, of course, has the customer's name and address embossed on it and also his state sales tax license number. Latter eliminates any question as to whether the sales tax should be charged or not.

The Lifsey firm makes these plates up in triplicate—three identical plates for each of its customers. One complete set of plates is the master file and is kept in the main office. A second complete set is used in the shipping and receiving department.

The third set of plates (which may or may not be complete) is kept in file drawers at the counter.

When a customer, usually a serviceman or contractor, orders something at the counter, the order is written up on an invoice form, in triplicate. When he says, "Charge it," the counterman goes over to the file drawers and pulls out the address plate of this man's firm.

The copies of the invoice and the plate are then placed in a manual stamping machine (Addressograph's model 100-B) so that an impression is made on all copies of the invoice.

In this way there'll be no problem of illegible handwriting on the invoice, or an incorrectly written address, points out Lifsey.

But here's where the credit control comes in:

"If the man says he has a charge account, but the counterman can find no plate for him, it means either that he does not have a charge account or that his credit is bad."

"The manager in the office keeps close tab on all accounts and when payment goes too long overdue on one account, the credit manager simply pulls that plate from the file at the counter.

"When the counterman is unable to find the proper plate in his file, he tells the customer to check with the office manager, who in turn will take up the matter of overdue accounts, or if it's a new customer, can set up a charge account.

"This method," says Lifsey, "has saved us more money than anything else we've ever tried on credit control."

Another advantage of this system, he adds, is that it lets a new man go to work on the counter without any danger of his getting into trouble on charge accounts.

The address plates at the counter are filed alphabetically in three drawers. The first drawer contains all "city" accounts while the other two are the out-of-town accounts normally served directly by the company's five outside salesmen.

Latter plates are kept at the counter because sometimes one of the out-of-town customers will stop when in town, or will phone in a rush order.

Larson Appoints Jessel Vice Pres., Sales Director

MILWAUKEE — Appointment of Harry J. Jessel as vice president and director of sales of the Gustave A. Larson Co., wholesaler of refrigeration, heating, and air conditioning equipment in Wisconsin, Illinois, and Iowa, was announced recently by Gustave A. Larson, the firm's founder and president.

H. J. Jessel

Jessel, a registered professional engineer, is a graduate of Marquette university and is a member of the American Society of Refrigerating Engineers.

Davis Distributes Revco Line In Va.-N.C. Area

NORFOLK, Va.—John C. Davis, president of Davis Distributing Co. here announces that his company has been appointed to handle Revco Chill Chest and upright food freezers.

Davis stated his company will cover the following 13 Virginia counties: Gloucester, Surry, Princess Anne, Sussex, Greensville, Southampton, Isle of Wright, Elizabeth City, Norfolk, Nansemond, Northampton, York, and Warwick.

The company will also cover seven counties in North Carolina.

W. H. Lassiter, Jr., Revco, Inc. representative, made the appointment.

Armstrong To Consolidate Corkboard, Pipe Covering Output In Beaver Falls

LANCASTER, Pa. — Armstrong Cork Co. has announced plans to consolidate all of its corkboard and cork pipe covering production in one plant at Beaver Falls, Pa.

The company's other cork insulation plant, located at Camden, N. J., will be placed on a stand-by basis after the consolidation program is completed early in 1954.

H. R. Peck, vice president and general manager of Armstrong's Building Materials Div., explained that for nearly half a century the two plants have been producing virtually the same products.

"However, technological improvements," he said, "now enable one plant to turn out as much volume as both together could produce a few years ago, and consolidation is clearly in order. Since the Beaver Falls factory produces a number of other products, in addition to cork insulations, it is economically more desirable to concentrate the operations in Beaver Falls, rather than in Camden."

Servel Employment Reaches All-Time High of 14,145

EVANSVILLE, Ind. — Employment at Servel, Inc. has reached an all-time high of 14,145, according to Lloyd L. Becker, employment supervisor. This figure, he said, is greater even than the peak of Servel employment during World War II—10,670, in August, 1943.

House Will Manage Sales In Phil. Area for Mueller

PORT HURON, Mich.—A. C. Dappert, sales manager of Mueller Brass Co. here, has announced the appointment of F. F. House as sales manager for the Philadelphia territory.

F. F. House

House joined the sales staff of Mueller Brass in 1938 as a representative in the Boston area. He later served in the Cleveland territory, and in 1942 was transferred to the home office. In 1944, he moved to the Philadelphia territory.

House is a member of the Refrigeration Service Engineers Society and the American Society of Refrigerating Engineers. Company offices in Philadelphia are located in the Beury building, 3701 N. Broad St.

F. H. Langsenkamp Dies, Was Pioneer Wholesaler

INDIANAPOLIS—F. H. Langsenkamp, chairman of the board of the F. H. Langsenkamp Co., refrigeration supply wholesaling firm, died here March 15.

Langsenkamp was one of the pioneer refrigeration supply wholesaling firms in the Midwest. Headquarters of the company is in Indianapolis, with branches in other Indiana and Kentuck localities.

"You bet! A-P CONTROLS ARE TOPS WITH US!"

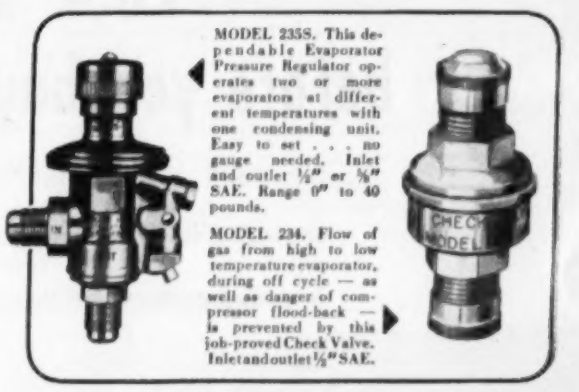
Murray Bergman, owner Wholesale Distributors Corp. New York, Jamaica, L. I.

Irving Fajans, owner Aetna Supply Co., Bronx, N. Y.

"because...the A-P line is easy to sell, easy to stock and best for guaranteed servicing"

"I've been selling A-P refrigeration valves since 1946," says Mr. Bergman, "and believe me . . . they're trouble free! We've set a six-year cost-record for little or no returns. Take the 235, for instance. Customers like the way this versatile valve operates two or more evaporators at different temperatures with one condensing unit. They like the simple way it can be set to proper pressure immediately. And above all . . . they like its dependability."

"Yes," adds Mr. Fajans, "the A-P line is a favorite with us, too, because it is highly profitable. Service men discover that they have fewer call-backs with A-P products. And — with A-P valves covering the entire range — their car stock and shop inventory is kept at a minimum. You can bet we like them."



MODEL 235S. This dependable Evaporator Pressure Regulator operates two or more evaporators at different temperatures with one condensing unit. Easy to set . . . no gauge needed. Inlet and outlet ½" or ⅝" SAE. Range 0" to 40 pounds.

MODEL 234. Flow of gas from high to low temperature evaporator, during off cycle — as well as danger of compressor flood-back — is prevented by this job-proved Check Valve. Inlet and outlet ½" SAE.

OTHER LEADING JOBBERS IN THIS AREA KNOW FROM EXPERIENCE...IT PAYS TO STOCK AND SELL A-P PRODUCTS

- The Harry Alter Company
- Fidelco Division, Rockbar Corporation
- The Capson Co., Inc.
- Melchior, Armstrong, Dessau Company, Inc.
- Sam Schwartz
- Paramount Electrical Supply Company, Inc.
- Reese & Long Refrigeration Products, Inc.
- Coleman Electric Supply Co.
- Excel Refrigeration Supplies, Inc.
- Kelvinator Division Nash-Kelvinator Sales Corp.

A-P CONTROLS CORPORATION
2460 North 32nd Street, Milwaukee 45, Wisconsin
In Canada: A-P Controls Corp., Ltd., Cooksville, Ontario

"some combinations can't be beat!"

Tenney KWIK-FREEZE ICE MAKER

Tenney Kwik-Freeze Ice Makers produce ice in 120 minutes, or less, and are designed for replacement of ice trays with pans for food storage at will. Quality construction with entire body rigidly fabricated from polished aluminum, with enclosed back plate. Finned booster coils and wrapped shelf tubing is electro-tin-plated for protection of food, and prevention of electrolytic action of copper and aluminum. Frozen food compartment with door can be supplied.

It takes a combination—a well integrated Tenney team of top engineering and practical application of the lessons of experience—to produce the most efficient and durable refrigeration equipment. This Tenney KWIK-FREEZE Ice Maker, for example, embodies years of design research and manufacturing experience in the refrigeration field. This experience, combined with top flight engineering methods, is your guarantee of complete satisfaction.

That's why, for either standard or special installations, it pays to "take it to Tenney."

SERVICEMEN CONTRACTORS, JOBBERS, ENGINEERS

Tenney brings you the advantages of advanced engineering and manufacturing facilities to handle any and every refrigeration problem, for the Tenney line is built to suit your needs. Outline your problem, and let us prove that a Tenney unit will solve it.

8476

Tenney Engineering, Incorporated
Dept. E, 26 Avenue B, Newark 5, New Jersey
Engineers and Manufacturers of Refrigeration and Automatic Environmental Test Equipment

SLANTS on Service

"Slants on Service" is a handy "package" devised by the NEWS to meet the needs of its busy readers.

Mounting Replacement Gaskets

Twisting a square drift pin in a replacement refrigerator door gasket will cut out a small piece of the gasket. This leaves a small hole for the mounting screw.

* * *

Stainless Steel Solder Speeds Repair Work

Soldering of stainless steel can now be done at normal soldering temperatures of 430° F. with a new silver-bearing solder developed by All-State Welding Alloys Co., Inc., of White Plains, N. Y.

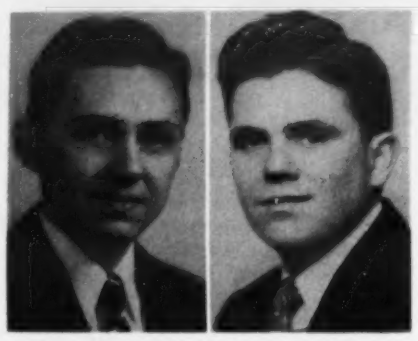
If a break should develop in a joint where a copper refrigerant tube, for example, connects to a stainless steel evaporator or shelf, it can be repaired as follows:

Clean the parts at the joint with emery paper.

Apply All-State No. 430 flux with brush and then join the parts with All-State No. 430 solder.

A soldering iron may be used or a torch if the latter is more convenient. The job should be completed within five to 10 minutes.

Because this solder melts at low temperature, it's not necessary to use an oxy-acetylene torch with its resultant high temperatures which can lead to difficulties.



E. F. KOUNOVSKY D. B. RENTSCHLER

Rentschler, Kounovsky Added to Sporlan Staff

ST. LOUIS—Sporlan Valve Co. announces the appointment of Don B. Rentschler and Edward F. Kounovsky to augment its present sales and engineering staff.

Before joining Sporlan, Rentschler was associated with the Ajax Corp. of America as service manager. Prior to that, he was an application engineer for Servel, Inc.

Rentschler received his B.S. degree from the United States Naval Academy at Annapolis. After graduation he served as assistant gunnery officer aboard a destroyer and later as a fighter pilot. He will work in the St. Louis sales office, handling application engineering and technical sales and field service matters.

Kounovsky attended Washington university in St. Louis. His background in the refrigeration and air conditioning field, particularly in the application of controls, includes seven years with General Engineering & Mfg. Co., St. Louis, in its engineering department.

Current LITERATURE available

To obtain further information on the literature listed below, please refer to key number preceding listing. Please use the "Information Center" form on "What's New" page.

New Barber-Colman Catalog Covers Industrial Controls

——KEY NO. O-330——

ROCKFORD, Ill.—Complete information on Barber-Colman industrial controls is now available in the new Industrial Control Catalog F 3941-2.

The catalog covers control terminology, thermostats, proportioning pressure switch, humidity controls, types of valve bodies, motor-operated valves, solenoid valves, valve capacities, temperature regulators, control motors, relays, electrical accessories, heating and air conditioning controls, and other products.

Brochure Covers Sub-Zero Chilling for Industry

——KEY NO. O-331——

CINCINNATI — A new 12-page brochure on Sub-Zero chilling for alloy steel heat treatment, metal stabilization, gas dehydration, and parts and material testing has been published by Sub-Zero Products Co. here.

Specific treatment and heat-cold cycles for Sub-Zero transformation of austenite to martensite are given for water and oil hardening tool steel, alloy carburizing steels, high alloy die steels, and high speed and moly type steels.

Test results on increases in tool life and in stability of steel obtained through Sub-Zero chilling are also given.

The various standard Sub-Zero units for low temperature industrial and laboratory chilling are illustrated and described with detailed specifications. Included among these standard models are units from 1.5 to 10 cu. ft. in capacity and from -10° to -150° F. in temperature range. Various Sub-Zero models for special applications are also illustrated.

Coolerator Ad Mat Service Catalog Just Off Press

——KEY NO. O-332——

DULUTH, Minn. — Just off the press is the new 1953 Coolerator ad mat service catalog complete with scores of independent art and copy ideas for Coolerator dealers who prefer to tailor their own Coolerator newspaper ads, plus ready-made ad layouts covering all Coolerator product lines, N. C. Sabee, manager of advertising and sales promotion of Coolerator Co., announced.

Designed to give the Coolerator dealer maximum assistance in planning local newspaper advertising, the new catalog provides mat service for all 1953 Coolerator models, marking the first time that Coolerator has offered such a complete assortment of newspaper ad mats, Sabee declared.

The 24-page book includes newspaper ad components for formulating Coolerator ads covering all 10 refrigerator models, three upright freezers, three chest-type freezers, three room air conditioners, and eight ranges.

Each mat possesses an individual mat number for convenience to the dealer in placing orders through his Coolerator distributor. A series of radio spots and television ideas is included.

The catalog also tells how the Coolerator dealer can build his own ads for local campaigns.

Reynolds Bulletin Explains Aluminum Stretch Forming

——KEY NO. O-333——

LOUISVILLE, Ky. — Reynolds Metals "Technical Advisor" Number 20 has a lead feature article devoted to stretch forming . . . one of the most advanced forming methods for aluminum for those applications where it is necessary to avoid "spring-back" or change of shape after forming.

The current issue also carries the second article in a new series on "Finishes for Aluminum," taken from a Reynolds technical manual.

Also featured is the new method of welding aluminum without heat. In this process (also called "cold" welding), true welds are made at room temperature by applying pressure in a certain manner. The process is explained and three typical welds in aluminum are shown.

This issue carries a detailed review of Reynolds new 148-page technical manual, "Forming Aluminum," and a question and answer section covering a variety of topics.

Carlon Offers Head Loss Data on Plastic Pipe

——KEY NO. O-334——

CLEVELAND—Authoritative data on head loss due to friction in Carlon plastic pipe has been compiled by Carlon Products Corp. here and is now available in the form of charts and graphs.

These are based on a combination of Carlon's own experience and a compilation of data derived from a thorough check of flow properties by the foremost hydraulic laboratories throughout the country.

The graphs covering water flow vs. head-loss for both Carlon plastic pipe and steel pipe show that the flow characteristics of Carlon are from 50 to 60% better, the company claims.

Youngstown Publishes Demonstration Manual

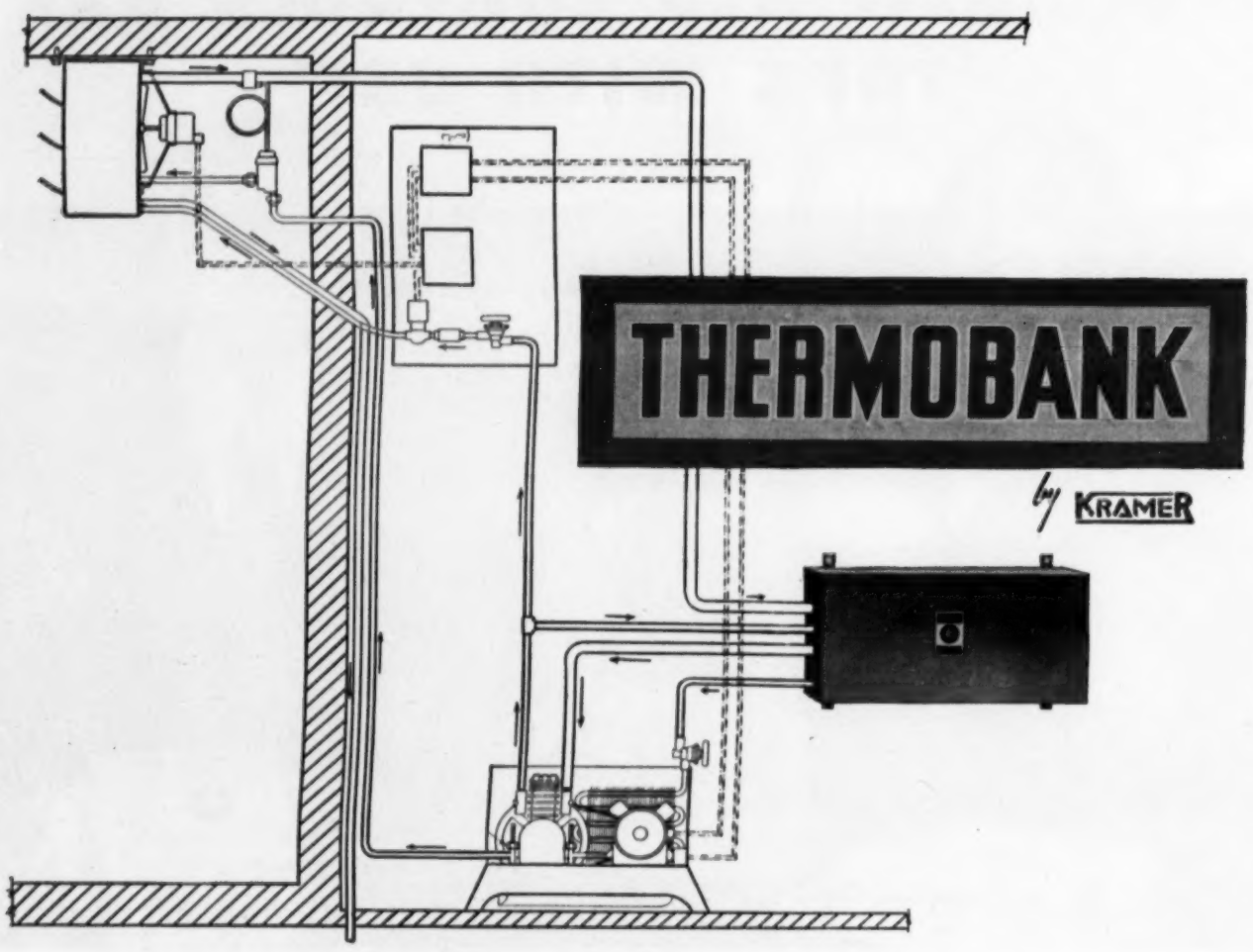
——KEY NO. O-335——

WARREN, Ohio — Instructions on how Youngstown Kitchens dealers can organize and conduct group demonstration meetings is contained in a new book entitled "Group Demonstration Manual."

Based on the experiences of distributors and dealers who have successfully operated demonstration sessions, the book suggests methods of arranging meetings and how to prepare for them. It even gives an outline of a talk that the demonstrator can use.

Included also are suggested registration and door prize cards, follow up letters, and a check-list of fittings and other supplies needed by the demonstrator. Illustrated instructions show how the Jet-Tower dishwasher can be rigged for demonstration even though it is not plumbed-in.

FLO-COLD
DRINKMASTER
DOUBLE-DUTY
BOTTLE COOLER
Mfd. by
United Friguator Engrs.
Menominee, Mich.
Write for free 8" x 10" photos



Look at the record before you buy any defrost system

For eight years THERMOBANK has been the unquestioned standard for low temperature automatic defrosting. Significant improvements over the years have made THERMOBANK even better.

If you look at the record of thousands of successful installations, you, too, will join the leading refrigeration experts specifying Kramer THERMOBANK.

WRITE FOR BULLETIN R-124

KRAMER TRENTON CO. • Trenton 5, N.J.

THAT'S THE SIXTH TIME YOU FILLED THAT LITTLE CAN IN HALF AN HOUR . . I HAD NO IDEA ANSUL OIL WAS SO PRECIOUS SOMEONE HAD TO STAND GUARD OVER IT
J. A. CORMACK

SEE PAGE 8

What's New

When requesting further information on new products, please use "Information Center" form.

'Bantam 100' Carbonator Has No Moving Parts

——KEY NO. G-341——

BIRMINGHAM, Mich.—Now being marketed under the trade name "Bantam 100," a completely new, self-contained, and fully automatic packaged carbonator is in production at Temprite Products Corp. here.

The complete unit includes the carbonator and a standard ¼-hp. motor with pump and relay, mounted together on a sturdy metal base. There are no moving parts in the carbonator itself.

Weighing only 28 lbs. and measuring a compact 13½ in. long by 9½ in. wide and 12 in. high, the easily installed unit is recommended by the manufacturer for use in vending machines, soda fountains and concessions, in restaurants, bars, taverns, roadside stands, drive-ins, or for domestic applications.

It is reported that the Bantam 100 is able to produce carbonated water at the rate of 100 gals. per hour. The unit operates independent of outside water pressure and without waste of CO_2 gas through vents or purging devices.

Plain water, under pressure, enters the stainless steel carbonator shell through a specially designed jet orifice, and the turbulent action of the water in the gas-charged atmosphere accomplishes the carbonation. The packaged carbonator can be combined with any type of cooling system.

Ice-Flo Cube Makers Produce Big Solid Cubes

——KEY NO. G-342——

ESMOND, R. I.—The new line of fully automatic "Ice-Flo" ice cube makers features five models which will turn out from 150 to 650 lbs. of big solid ice cubes every 24 hours, the Esmond Mfg. Co. here has announced. The models range in size from ⅓ to 1½ hp.

All models stand 54 in. high except the ⅓-hp. model (V-33) which is 48 in. tall. Each is 28½ in. deep and may vary from 39 to 75 in. wide

The smallest machine makes some 2,500 cubes daily while the largest delivers 11,500 per day. Capacity of the built-in, pull-out storage cabinet equals 8 to 12 hours production, depending on the model. All units are powered by Copeland condensing units.

Ice-Flo cubers are available in all models now. Crushed ice machines will be available on special request.

New De-frost-it Plugs Directly Into Wall Outlet

——KEY NO. G-343——

TWO RIVERS, Wis.—A new "twin" model of their "de-frost-it 90" for domestic refrigerators has been announced by Paragon Electric Co. here.

Known as the "de-frost-it 80," the new unit is plugged directly into the wall outlet, and the refrigerator cord is plugged into the "de-frost-it." This model is intended for use under conditions where the electric outlet for the refrigerator cord is unobstructed, or where it is not within reach of children or pets.

Paragon points out that there are several conditions under which it is more desirable to use the "de-frost-it 90"—a model that comes with refrigerator cord and plug. One is the case where the wall outlet is located behind the refrigerator, or is otherwise awkward to reach. The other is where the defrosting unit, if plugged directly into the wall outlet, might be tampered with by children, or accidentally dislodged by pets. When the "de-frost-it 90" is used, it may be hung on the wall out of reach of children or pets.

Both units convert any domestic refrigerator to "self-defrosting." The automatic defrost periods are adjustable, so that the correct cycle may be selected to suit age and style of refrigerator, or climate and humidity conditions.

Oven, Surface Unit Can Be Installed Separately

——KEY NO. G-344——

CULVER CITY, Calif.—New Western-Holly built-in gas range units, so designed that oven and broiler unit and surface cooking unit can be installed separately in different parts of the kitchen as desired, have been introduced by the Western Stove Co., Inc. here.

The units are approved by the American Gas Association for use with natural gas, manufactured gas, or L-P fuel, the company says.

The oven and broiler unit is completely self insulated. It may be installed in a tall cabinet or recessed in a wall. The expandable oven is 18 in. wide, of one-piece seamless construction. Automatic clock control, Minit Master timer, pyrex oven window, and oven light are standard equipment.

A separate high-speed glide-out broiler permits direct flame broiling exactly as in a standard gas range.

The manufacturer stresses that the oven and broiler can be installed at exactly the height most convenient for the housewife, so that they

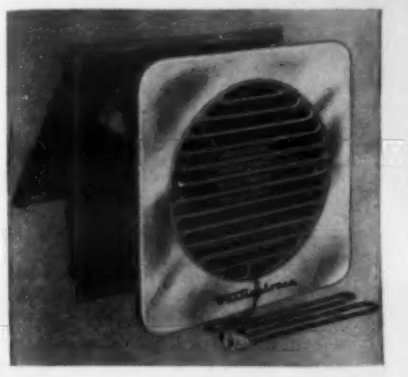
are accessible without bending or stooping.

The surface cooking unit drops into the work deck of a base cabinet and gives four giant burners in line. Ample space for storage of cooking utensils is provided in the cabinets beneath the cook top.

Top burner unit and oven and broiler unit are available in stainless steel, white or pastel yellow, green, or blue porcelain enamel.

Custom cabinets are not necessary, the manufacturer says, for a number of national cabinet makers have added special cabinets to their lines tailored to Western-Holly specifications. Both metal and wood cabinets are available.

Because the Western-Holly gas range units become a permanent part of the home they may be cleared for long-term FHA financing.



Ceiling Ventilating Fan Made for Small Kitchen

——KEY NO. G-345——

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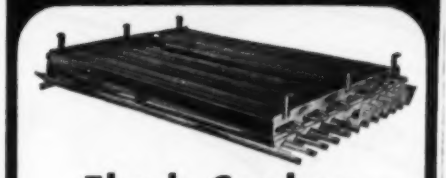

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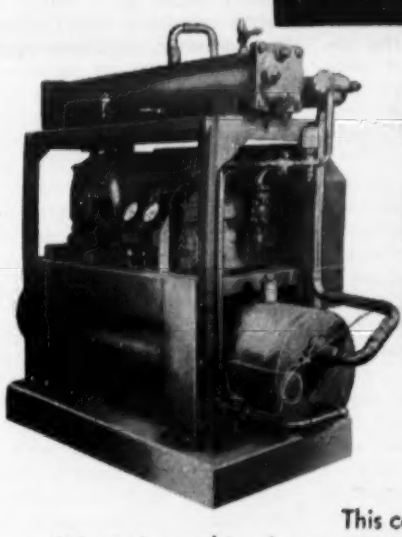

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Air Conditioning & The Builder (3)

A Discussion of Types of Air Distribution Systems Now Being Used In Residential Air Conditioning Installations

At the National Association of Home Builders convention, a presentation on year-round residential air conditioning systems was prepared under the auspices of the Air Conditioning & Refrigerating Machinery Association, with various aspects of the subject discussed by A. E. Meling, Carrier Corp.; S. J. Levine, General Electric Co.; Keith T. Davis, Bryant Div. of Affiliated Gas Equipment Co.; and J. A. Gilbreath, Servel, Inc.

Because this presentation offered so much good information about the fundamentals of year-round residential air conditioning—what it is and how it works, and what builders can do in terms of changing new home design to lower building costs, the NEWS is publishing the discussions. Two previous instalments were published in the March 2 and March 16 issues.

Discussion in this issue, by Keith T. Davis, centers upon the characteristics of air distribution systems now used in residential heating systems, and some of the factors involved in adapting them to year-round residential air conditioning installations.

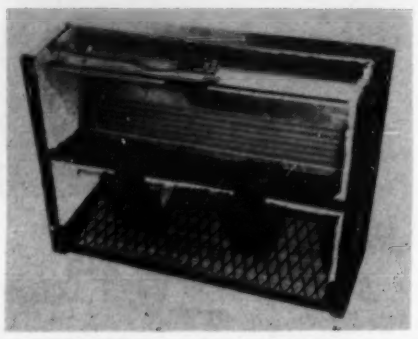

FIG. 2—Room unit convector for systems in which hot or chilled water is piped to such convectors in individual rooms.

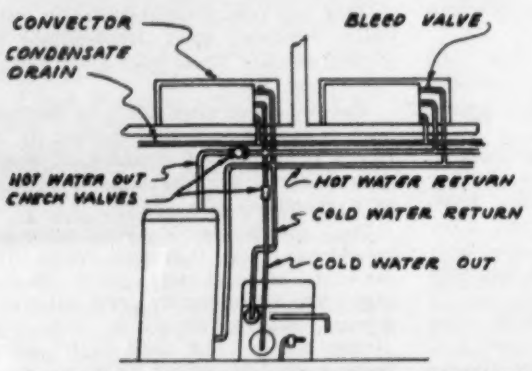

FIG. 1—Where heating system is "boiler and radiation" type, a refrigerated water chiller can be connected into the system for summer cooling.

By K. T. Davis, Bryant Heater Div., Affiliated Gas Equipment, Inc.

A previous speaker, under the topic heading "What With" has presented a veritable catalog of apparatus that may be used to produce cooling effects. But apparatus alone does not necessarily result in comfort any more than a pile of building material assures a successful house.

There are basic rules for construction and utilization which are applicable in any assembly operation. Such rules are important in the installation of healthful, comfort producing air conditioning systems. But they are not as mysterious or complex as my topic title, "With What" would lead you to believe.

After having been exposed to the variety of air conditioning machinery described in a previous presentation, I sense that you may be pondering such practical matters as location of equipment and the floor area it may require—probably in connection with some specific house floor plan you have in mind.

Keep that specific house in mind, for I believe I can demonstrate that those apparent complexities now causing you concern actually have a way of solving themselves when it comes to logical selection of equipment for a specific installation.

That air conditioning equipment takes many and varied forms in its final engineered assembly largely results from manufacturers attempts to provide flexibility to cope with application needs and utility services. Needs vary on a national basis since climates and fuels differ. Even on a local basis there are differences in house styles and equipment room locations.

But, when it comes to that individual house plan which in your locality you have found offers the most in customer features and economy advantages, it is believed there is a logical uncomplicated basis for selecting a summer air conditioning system which will add immeasurably to the saleability of that property.

Let's return to that particular house which you are picturing in your mind, and let's see if consideration of a few simple environmental facts will not permit you to solve the problem of how best to incorporate comfort cooling in your plans.

First, the capacity of the unit required will depend upon the size of the house, its construction, and your local climate.

This is logical. It isn't a new idea for you have always accepted it in selecting heating equipment. There are some differences in the figuring of heating and cooling loads. Also, there are certain construction techniques to consider which make a new air conditioned home a better investment than an older home to which air conditioning has been added.

Without even realizing it, you probably have already selected the fuel you intend to use for heating. The proper energy sources or utilities required for cooling are likewise a matter of local economies and local experience. Based on initial investment and operating costs, consideration will dictate the type equipment which best utilizes the services provided by gas, oil, electricity, and water.

Use of Water Savers

In areas plagued by water limitation orders, water conserving devices of various types will become standard. In other areas the cost of water will be balanced against the extra energy costs which accrue through use of water economizers. While you may not this minute be able to definitely decide the type of utility services you will use for cooling, local conditions provide the basis for a decision just as positive as your instinctive selection of the heating fuel.

It seems fair to presume you will use a central heating system in this home you have in mind. Possibly you have already decided whether it will be a boiler system or a forced warm air installation. Regardless of which, it is quite likely that with practical revisions and some additions either system can be utlized to a large extent to provide the summer cooling function of all-year comfort conditioning.

Just as in heating, it is recommended provisions be made to comfort condition the entire building during the summer. Experience shows that people want it that way and complain afterward if it isn't possible to cool the entire house, conveniently forgetting any former understanding of equipment limitations. Even those rooms specified to be cooled may not be kept comfortable if doors are open to other unconditioned portions of the house permitting interchange of humidity and hot air.

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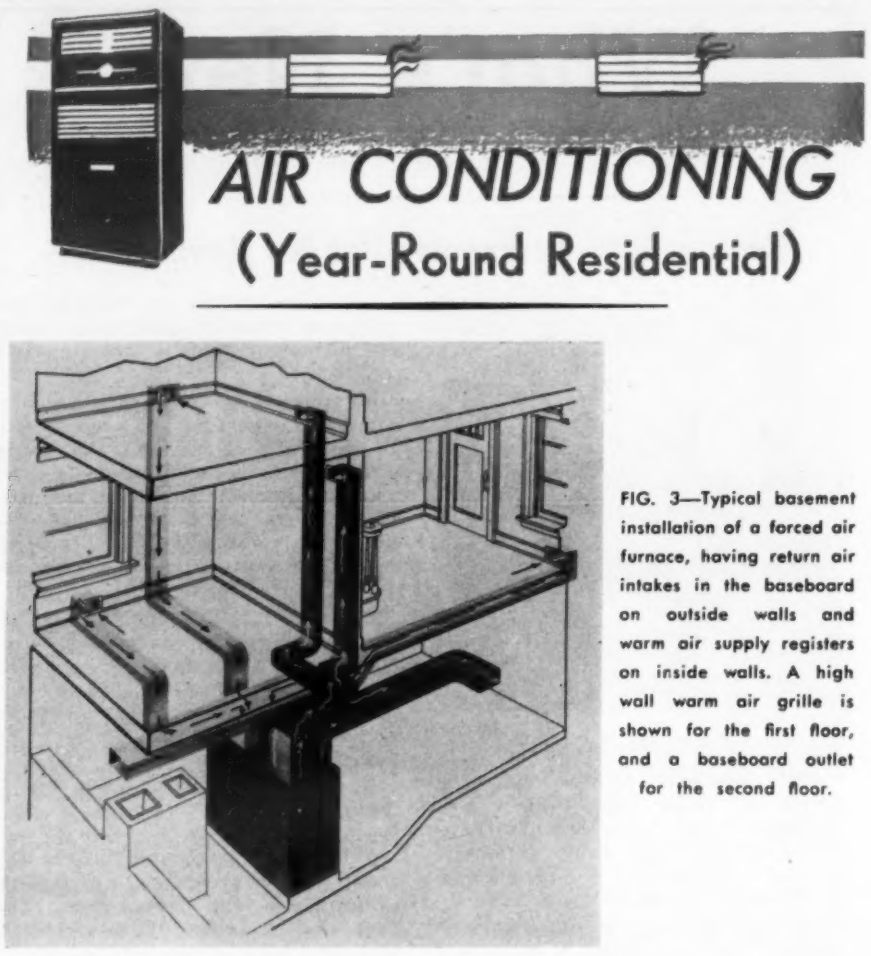

AIR CONDITIONING (Year-Round Residential)

FIG. 3—Typical basement installation of a forced air furnace, having return air intakes in the baseboard on outside walls and warm air supply registers on inside walls. A high wall warm air grille is shown for the first floor, and a baseboard outlet for the second floor.

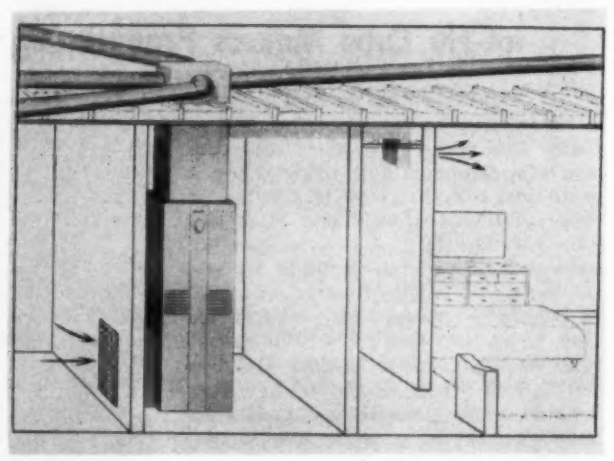

FIG. 4—Utility room installations for warm air heating systems have become popular, and are adaptable to summer comfort cooling installations.

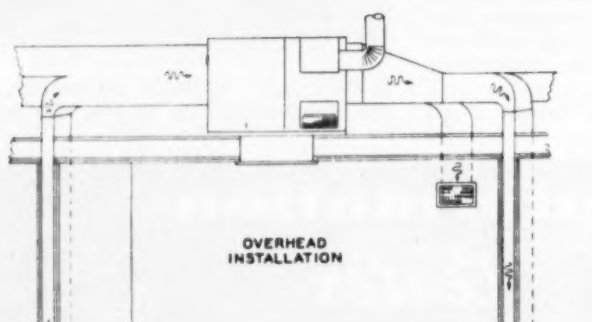

FIG. 5—Specially designed furnaces have been built for attic installation. Properly mounted above load bearing partitions, compact integrated equipment can be utilized with a year-round duct system having either ceiling, high side wall, or adjustable diffusion type low wall registers.

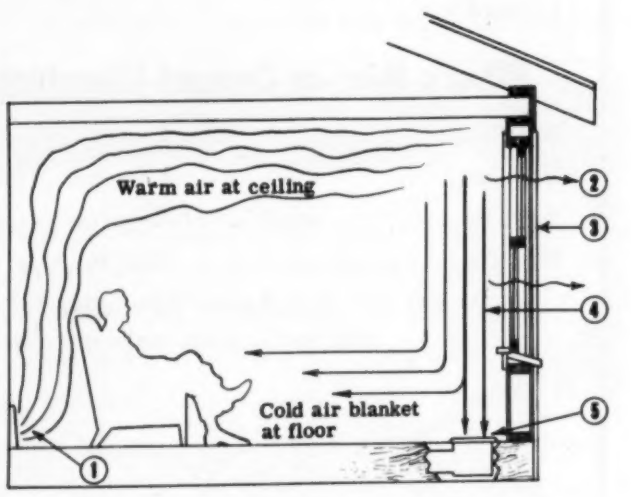

FIG. 6—Air distribution in a conventional forced warm air heating system. Warm air is introduced from a source (baseboard or high wall outlet) within a warm partition, rises toward the ceiling and then flows toward the cold outside wall. Air cooled by contact with outside walls drifts downward, to be drawn into a return grille below a window or cold wall surface, and removed from the room before creating ankle-level drafts.

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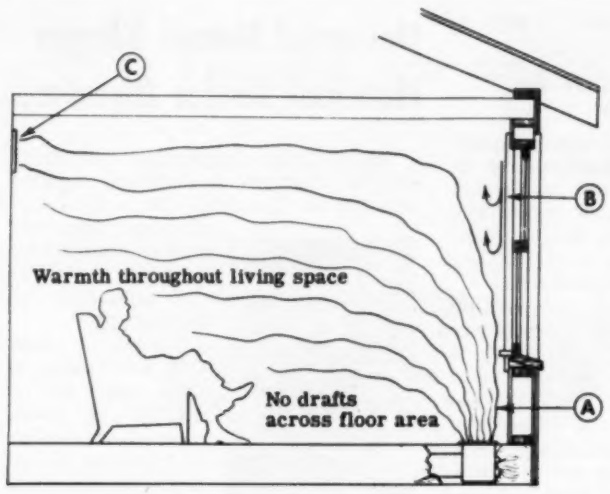

FIG. 7—In the warm air perimeter system, warm air is introduced through the floor or special low wall registers, which cause it to hug and blanket large areas of outside wall. Properly applied, most of the cold air dropping from windows and cold surfaces is mixed with warm air and so does not accumulate on the floor.

Residential Air Conditioning Systems

(Concluded from preceding page)

Most certainly you have some very definite ideas as to where the heating plant is to be located in your minds-eye home. Whether it is in the basement, the utility room, or the attic, almost certainly there is an integrated winter-summer unit available to meet your application requirements.

Probably it will be somewhat larger than the most compact modern heating plants, but remember it performs additional useful and saleable service. The manufacturer has carefully designed it for convenient access to functional parts and it should be so installed that accessibility is retained. Certainly, as compared with the cost of a carport or garage, any slight construction revision needed to meet minimum installation requirements is justified on the basis of the health and comfort services rendered by the all-year conditioning system.

As to the manner in which cooling is introduced into the rooms, the practices typical in forced warm air heating installations require little if any modification. The ductwork should be tight to reduce air leakage and well insulated where it passes through unconditioned spaces so as to minimize heat transfer losses.

The air distribution system should be sized so as to take into consideration the heating and cooling needs of each room. Fortunately, the air circulation required during the summer and the winter is not so different as to necessitate new standards in duct sizing, assuming adequate fan capacity is available in the cooling apparatus. Also fortunate is the fact that the cooling capacity of most machines is not critical to air flow rates.

Ideal Grille Prevents Cold Drafts

As with heating, the ideal discharge grille so introduces air that there is good mixing with room air without drafts being noticed by occupants. Since rapidly moving air is objectionable if it is cooler than body temperature, there is preference for air introduction and mixing in unoccupied portions of rooms, such as near ceilings or along outside walls. Where supply outlets for cooling are used in other locations, special consideration should be given to grille placements and grille design.

As in heating, automatic controls offer precision and dependability of service impossible of matching even with the most obedient of human servants. In cooling, the thermostat provides a special service of merit, that of starting the cooling equipment early in the day so there is storage of cooling effect to assist in meeting the heavy load of late afternoon.

Cooling equipment should be sized to maintain an indoor design temperature no higher than 80° F. and a relative humidity of 50%. Usually the thermostat is set to maintain 75° F. so only for a few hours during the hottest days of the year will the indoor temperature approach 80° F. Better humidity control is obtained when units are not oversized, and dependance on automatic controls permits full development of each system's maximum capacity.

Since we have been discussing the application of summer conditioning in terms of winter installation comparisons, it is logical to take a look at a few typical heating systems to envision how they would need be modified in order to function as year-round conditioner systems. Some of these illustrations may closely approximate your present heating arrangements, and if so, should help you understand any changes necessary in new houses where cooling is to be installed.

Perhaps your preferred heating installation consists of a boiler and radiation, with piping which circulates hot water between the two. If you connect a refrigerated water chiller into such a system (Fig. 1), cold water can be circulated during the summer to heat transferring surfaces located in the conditioned rooms.

Such room units, consisting of casings, finned surfaces, fans, and condensate collection drains, (Fig. 2) are used during the heating as well as the cooling season. This sort of arrangement with variations is frequently seen in hotel rooms where individualized temperature control is featured. It may be adapted to homes with equal advantages.

Typical Basement Installation

Illustrated in Fig. 3 is a typical basement installation of a forced air furnace, having return air intakes in baseboard on outside walls and warm air supply registers on inside walls. A high wall warm air grille is shown for the first floor, and a baseboard outlet for the second floor.

Suppose the basement unit pictured were a year-round conditioner —the arrangement shown would be acceptable with possible consideration being given also to using high wall registers upstairs, or providing baseboard stack heads with diffusion grilles capable of upward air deflection in the summer and below horizontal deflection in the winter.

Building practices have changed. Basements are not always available for today's furnace installations. Utility room applications as shown in Fig. 4 have become common. This illustrated distribution system is also fine for summer cooling service.

Obviously any ducts above the ceiling insulation should be well insulated against attic heat in the summer and attic cold in the winter.

A possible point for special consideration in such a year-round system is objectionable noise of the mechanical operation which could be transmitted through short ducts such as the large return air opening. Interposing an acoustically treated muffler box can be helpful should the noise level of a particular unit require such treatment.

Units for Attics, Penthouses

Specially designed furnaces have been built for attic installation (Fig. 5). Roof top or penthouse location of commercial cooling units is not unusual, and has been extended to domestic installations utilizing attic furnaces. Properly mounted above load bearing partitions, compact integrated equipment can be utilized with a year-round duct system having either ceiling, high side wall, or adjustable diffusion type low wall registers. Again, air ducts exposed to attic temperatures must be well insulated.

There has been much recent discussion of the warm air perimeter system as compared with the conventional system. The latter, illustrated in Fig. 6, indicates warm air is introduced from a source (high wall or baseboard) within a warm partition, rises toward the ceiling and then flows toward the cold outside wall. Air cooled by contact with outside walls drifts downward, to be drawn into a return grille below a window or cold wall surface, and so removed from the room before it creates objectionable ankle - level drafts.

The perimeter system (Fig. 7) is a reversal of the original warm air introduction practice. Here warm air is introduced through floor or special low wall registers which cause it to closely hug and blanket large areas of outside wall. Properly applied, most of the cold air dropping from windows and cold surfaces is mixed with warm air and so does not accumulate on the floor.

That which does reach the floor may be injected into the warm air jet leaving the floor registers. Without cold air to cause uncomfortable drafts on the floor, positioning of return air grills is not important from the comfort standpoint, and cost savings may be effected in installing the return air side of the system.

Basement Installed Perimeter System

In Fig. 8 is illustrated a basement installed perimeter system, having a single return duct from the hall to the furnace and having vertical discharge diffusion registers near outside walls below window areas.

Fig. 9 illustrates a similar type of system installed in a crawl space and fed by a utility room installed downflow furnace havnig a single high wall return grille. Either of these systems, assuming proper appliance and duct sizing, is considered satisfactory for summer cooling service.

Fig. 9 might also be considered an illustration of a perimeter radial system cast within the concrete slab floor of a house without basement or crawl space. So far as heating is concerned, warmer floors may be achieved by feeding the radials into a buried duct looping around the entire perimeter of the house close to the outside walls. Vertical discharge registers are placed above and connect with this loop but the loop serves the further purpose of "fencing-out" the cold which would otherwise penetrate inward from the edge of the floor slab.

From the standpoint of summer cooling, each of these concrete slab installations is satisfactory if it is built correctly for heating; that is, so constructed that no moisture can seep into the air ducts and so built that there is proper insulation between the footings and the floor slab.

Other Duct Arrangements

There are other ingenious duct arrangements which have been successfully tried. Wall blanketing types of diffusion grilles mounted in outside walls are frequently used in connection with attic furnaces or vertical heaters located in utility rooms. Both of these distribution systems are functionally acceptable for summer cooling if the exposed ductwork is insulated and the fan characteristics are adequate.

Other installations have been made which match a downflow furnace with an upflow cooling unit located in the same small utility room, Fig. 10. The ceiling diffusers which serve as returns during the winter operate as supply grilles during the summer, and the perimeter located floor grilles which serve as warm air suppliers during the winter perform as return air connections during the summer.

There are many thousands of house plans to which you may refer in the planning of your homes. You have seen here a few of the many optional plans whereby summer cooling can become a built-in part of your contemplated new homes.

It is true that important details of duct and equipment sizing and selection have been avoided in these illustrations, not only for purposes of simplifications, but because special knowledge of your locality is essential in order to properly answer many pertinent questions.

These are details best handled by an installer trained to know the theoretical approach to your problem as well as the practical methods found most desirable under local conditions. This man knows your local codes and ordinances, knows your typical weather history, knows water, fuel, and electric rates, and is familiar with local power characteristics and water availability.

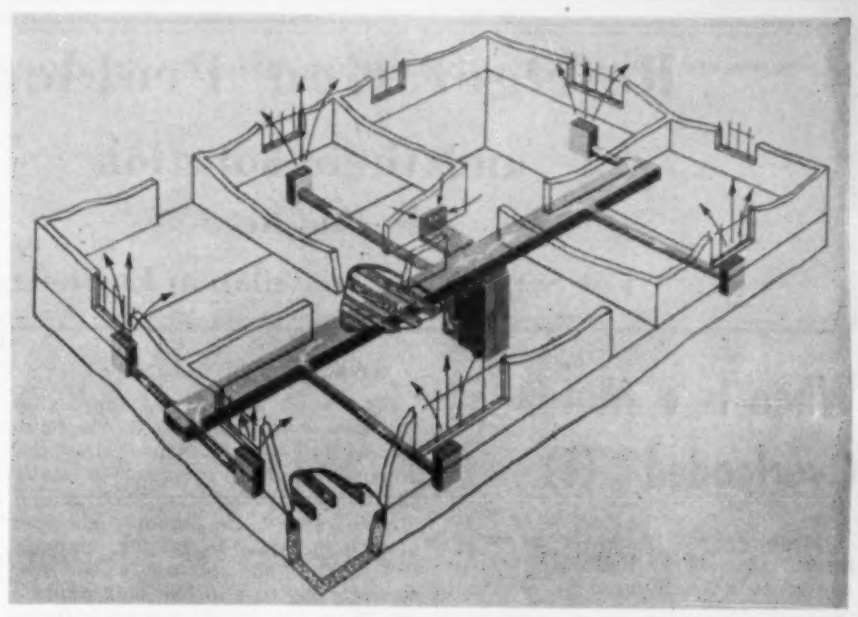

FIG. 8—Illustrating a basement installed perimeter system having a single return duct from the hall to the furnace and having vertical discharge diffusion registers near outside walls below window areas.

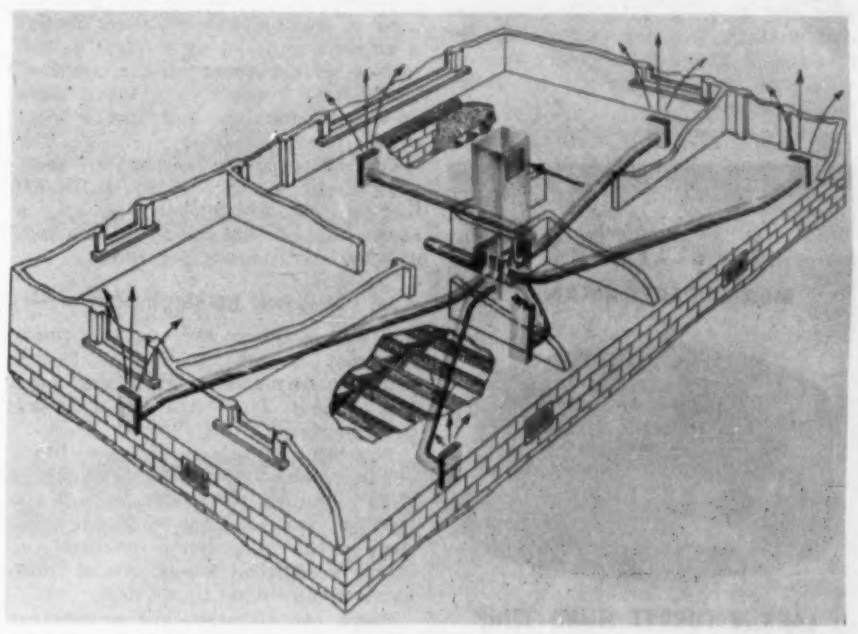

FIG. 9—A perimeter type air distribution system installed in a crawl space and fed by a utility-room-installed downdraft furnace having a single high wall return grille. Either of these perimeter systems, says the author, could be considered satisfactory for summer cooling service, assuming proper equipment and duct sizing.

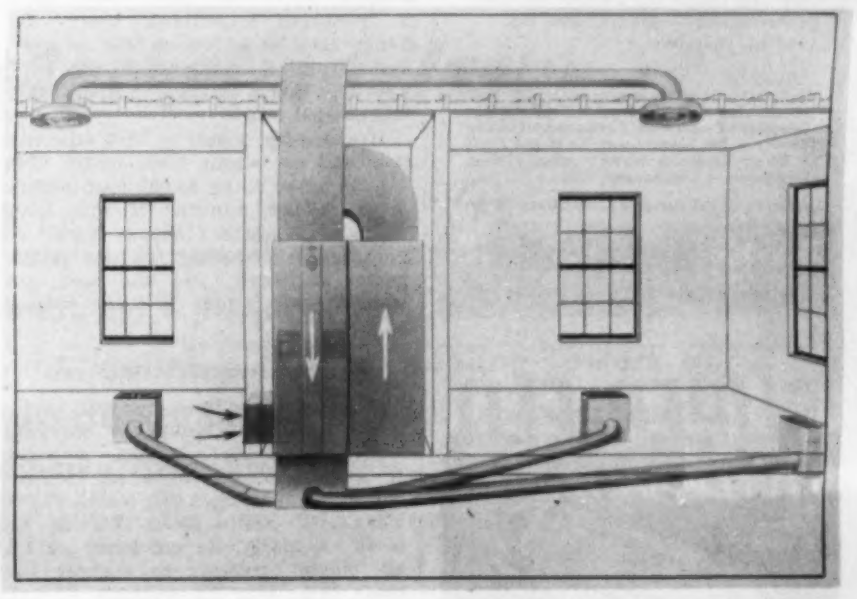

FIG. 10—Installation of year-round system which matches a downflow furnace with an upflow cooling unit located in the same utility room. The ceiling diffusers which serve as returns during the winter operate as supply grilles during the summer, and the perimeter located floor grilles which serve as warm air suppliers during the winter perform as return air connections in summer operation.

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For Service and Installation Engineers

Paul Reed

When Is a Motor Overloaded? (1)

When we say a motor is overloaded, we may be thinking of either one of two conditions.

(1) Is it carrying a load, and drawing more amperage and wattage than the "full load rating" shown on the nameplate of the motor?

(2) Is it carrying such a heavy load and drawing so much amperage and wattage that the motor may be damaged? There is a great deal of difference in the answer to those two questions.

WHAT IS A HORSEPOWER?

Let's start at the beginning. One horsepower is defined as 33,000 foot-pounds per minute. Thus, it is the amount of work required to move 33,000 lbs. through one foot in one minute; 66,000 lbs. through one foot in two minutes; 16,500 lbs. through two feet in one minute; 16,500 lbs. through one foot in one half minute, etc. When the weight in pounds times the distance in feet divided by the time in minutes required comes to 33,000, work to the amount of one horsepower has been done.

Whether this amount of work is done by human muscles, oxen, horses, a steam engine, or an electric motor, makes no difference; the amount of work done, measured in basic units of weight, distance, and time is what counts.

One horsepower is 33,000 foot-pounds per minute; ½ hp. is 16,500 foot-pounds per minute; ⅓ hp. is 11,000 foot-pounds per minute; ¼ hp. is 8,250 foot-pounds per minute, etc.

MOTOR EFFICIENCY

If an electric motor could be 100% efficient; if all of the electricity could be turned into work, and none lost as heat, 746 watts would do one horsepower of work.

No electric motor is ever 100% efficient; some of the electricity is "lost" because of resistance of the wire, in the changes in the magnetism in the iron, and in friction and other mechanical losses. All of these losses finally wind up as heat.

Some large motors are as efficient as 90% or more; that is, they produce nine tenths or more work from the electric energy they use, and lose 10% or less in heat. Under normal conditions, the efficiency of small fractional (less than 1 hp.) motors is about 55 to 70%, and under light or over-load conditions, their efficiency may be as low as 50% or even less. That is, a small motor may waste as much current as it converts into useful work.

If a one-hp. motor is 75% efficient, it would use about 1,000 watts (746 ÷ .75) when doing 33,000 foot-pounds of work per minute. Of this 1,000 watts, 746 watts (75% of 1,000) is going into producing the one horsepower of work, and the rest, 254 watts (1,000 −746) is being wasted as heat.

MOTOR OVERLOADED 25%

If the load on that motor was increased 25%, it would be carrying 125% of full load, or 25% overload. If its efficiency stayed at 75%, it would be drawing 1,250 watts (1,000 × 125%) while doing 1¼ hp. of work. Actually, its efficiency at 1¼ hp. would probably be slightly less than 75%, and its wattage a little more than 1,250 watts.

The greater the amount of load a motor is carrying (useful work it is doing), the greater its losses will be. When it was doing one hp., it was drawing 1,000 watts, of which 746 watts went into the one horsepower of work and 254 watts into heat (enough for a small electric percolator, or to run a ⅓-hp. motor).

When it was doing 1½ hp. (25% overloaded) it was drawing 1,250 watts, of which 932 watts (1¼ × 746) went into the 1¼ horsepower of work and 318 watts (enough to run a ¼-hp. motor) went into heat. So the greater the load, (the useful work) the greater is the loss that is turned into heat, so the hotter the motor gets.

How hot does the motor get? We have been talking about watts, not degrees of temperature. There is no easy way to figure how hot the motor gets—how many degrees of temperature it rises, for that depends on the design of the motor and how cool the room is in which the motor is operating, as well as the load.

TEMPERATURE RISE OF 40° C.

Many years ago, the motor manufacturers agreed among themselves that they would so design and build their various sizes of motors, that when they were running continuously in a 40° C. (104° F.) room and carrying full load, they would warm up no more than 40° C. (72° F.). That is, in this 40° C. (104° F.) room, their motors, running continuously at full load, would get no hotter than 80° C. (176° F.).

Motors are apt to be used in various temperatures, either above or below 40° C. (104° F.), so they do not necessarily heat up to 80° C. (176° F.). They are rated for a 40° C. (72° F.) temperature *rise*. Thus, in a 30° C. (86° F.) room, the motor temperature would rise 40° C. (72° F.) to 70° C. (158° F.). In a 50° C. (122° F.) room, the motor temperature would rise 40° C. (72° F.) to 90° C. (194° F.).

EARLY PRACTICE WAS 15% OVERLOAD

However, the motor manufacturers gave a small margin of safety. To allow for some accidental and occational overloads, they gave a 15% margin. Instead of supplying a 1-hp. motor, they actually supplied a 1.15-hp. motor, but called it a 1-hp. motor.

That is, they designed and built the motor that they rated 1 hp. to carry 1.15 hp. continuously and still not rise in temperature more than 40° C. (72° F.). The nameplate still showed it as a 1-hp. motor, and still showed that at full load it would draw 1,000 watts (assuming that it was 75% efficient).

(Some motors show full load amperes instead of watts, but we will disregard this for the present.)

So the motor rated 1-hp. was actually a 1.15 hp. motor that would not rise more than 40° C. (72° F.) above room temperature until it was loaded to 1.15 hp. At 1.15 hp., it would be drawing approximately 1,150 watts (1,000 × 1.15).

If the load on this 1.15-hp. motor (rated 1 hp.) were actually 1 hp., the motor would not rise as much as 40° C. (72° F.) in temperature, and it would be drawing only 1,000 watts required for 1 hp.

If it were carrying only ½ hp., its temperature rise would be a great deal less than 40° C. (72° F.), and its wattage would be much less than 1,000 watts. However, the wattage would be more than ½ of 1,000 watts; actually, it would be about 600 watts instead of 500 watts, for its efficiency would be much lower at one half load than at full load.

On the basis of 600 watts at one half load, its efficiency at one half load would be 62% (373 ÷ 600 × 100).

PRESENT 25% AND 40% PRACTICE

As the years passed, many equipment manufacturers, particularly in the refrigeration industry, demanded more and more power from the motors. By loading the motors more heavily, more capacity could be obtained from their equipment.

However, since much refrigeration equipment is sold by horsepower rather than by B.t.u. per hour, it made the equipment appear more efficient if the motor kept its old horsepower rating on the nameplate. So the practice has gradually built up to put much greater motor horsepower into motors, but show a lower horsepower on the nameplate.

For example, fractional horsepower motors used on condensing units to drive compressors are capable of carrying 40% overload continuously without heating beyond the 40° C. (72° F.) temperature rise. Thus, a ½-hp. motor may be and usually actually is a 7-hp. motor (.5 × 140%).

Single phase motors 1 hp. and over are likewise under-rated, but they can carry only 25% overload continuously. Thus, a 1-hp. motor may be and usually actually is a 1¼-hp. motor, but with a 1-hp. rating on the nameplate.

The motor manufacturers have been able to produce these motors so that they will carry the heavy overloads continuously, by careful design and selection of materials and by improving the cooling of the motors.

This condition has resulted in quite a bit of misunderstanding, particularly on the part of maintenance men and even plant electricians, who are not accustomed to motors of such heavy overload characteristics, and are therefore apt to condemn the motor as being unsafely loaded.

The 25% and 40% overloads referred to open type motors. Hermetic motors are apt to be overloaded even more heavily. We will discuss them and answer the original question in the next instalment.

(To Be Continued)

Hill Appliance Formed

BUFFALO—Hill Appliance Co. has been incorporated here with capital of $20,000. Incorporators are Theodore A. Burd, Donald J. McCarthy, and Carmella DiPasquale.

Universal Names Klinger National Service Director

LIMA, Ohio—Appointment of Richard E. Klinger as national service director for Universal Major Elec Appliances, Inc. has been announced by Harry J. Holbrook, vice president of marketing.

R. E. Klinger

Klinger was with Kelvinator in sales and for a number of years handled service on all types of equipment. He left Kelvinator to accept a position with Borg-Warner International where he set up distributor service departments in South Africa and southern Europe.

Later he joined the Norge Div. as assistant commercial sales manager and became freezer sales manager. When Norge moved from Detroit to Chicago, Klinger became vice president and general manager of York-Detroit.

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Air Conditioning & Refrigeration News

April 13

The 1953 Air Conditioning Marketing Issue

This annual issue of the NEWS always is an editorial standout—a valuable and much used round-up of practical, field-tested information which aims at one target—*How to sell more air conditioning!*

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April 13-Air Conditioning Marketing Issue

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Government Contracts

PROCUREMENT INFORMATION

The following is a list of proposed procurements issued by the various indicated U. S. Government procurement offices. This list is compiled and made available daily on a free pick-up basis. Prospective bidders may obtain complete bid sets by a request **to the purchasing officer under which the purchase is listed in** this Synopsis. Be sure to identify completely the bid invitation you wish by including in your request the item description, the invitation number or reference number and the opening date. This will save time in filling your request. For reasons of economy, specifications are normally not included with the bid invitations unless the specification is a new one. First time bidders on a particular item should request a copy of applicable specifications and drawings at the time the request for a bid is made.

It is not necessary to refer solely to the issuing office for additional data on a bid invitation issued by any of the following U. S. Army Ordnance Offices: Ordnance Tank Automotive Center; Detroit Arsenal; Frankford Arsenal; Picatinny Arsenal; Raritan Arsenal; Ordnance Ammunition Center, Joliet, Ill.; Rock Island Arsenal; Springfield Armory; Watertown Arsenal; and Watervliet Arsenal. Complete information on any purchase listed by any of those offices alone can be obtained from the Ordnance District Office nearest you. Its address is on file in your nearest Department of Commerce Field Office. Do not ask an Ordnance District Office for information on a purchase unless it is listed by one of the above-named offices. **Ordnance District Offices do not have information on any other purchases.**

Invitations for Bids numbers will be followed by the letter "B." Requests for proposals or quotations will be indicated in this column by the letter "Q" or, if numbered, the number will be followed by the letter "Q."

DEPARTMENT OF DEFENSE

Description	Quantity	Invitation No.	Opening Date
Tooele Ordnance Depot, Tooele, Utah			
Installation of Additional heating and ventilating equipment in bldg. T-609	Job	12	23 Mar 53
Officer In Charge of Construction—Ninth Naval District, Bldg. 1-A, Great Lakes, Illinois			
Replacing steam distribution system serving 38 buildings, steam pressures both 125 PSI and 60 PSI, includes new heat exchanger, circulating pumps, temperature controls, and condensate pump for heating system of each of 38 bldgs. also 7 other condensate pumps and 6 sump pumps, includes approximately 15,000 feet steam mains 2 in. to 14 in. in diameter in existing underground tunnels and ducts, and 6,000 feet of direct burial type jacketed insulated steam conduit, construction of new man-holes and repairs to tunnels also included: work located at Naval Training center, Great Lakes, Ill. $40.00 deposit payable U.S. Treasurer required for plans and specifications.			
Officer In Charge of Construction, U. S. Naval Station, New Orleans, Louisiana			
Air conditioning administration Building No. 8, Naval Station, New Orleans, La.	Job	35404	2 Apr 53
Commandant of the Marine Corps, Washington, D. C. Attn: Sup. Dept. Procurement Section			
Ice cream freezer 5-gal. capacity, complete	5 ea.	905-Q	27 Mar 53
Ice cream hardening cabinet, 80-gal. round can capacity, complete.	5 ea.	905-Q	27 Mar 53
Philadelphia District, Corps of Engineers, 1420 Walnut St., Philadelphia, Pennsylvania			
Fan, floor type adjustable pedestal, max. 8 ft., 115-volt, 60-cycle, nonoscillating, 30-in. blades	2747 ea.	(ENG-36-109-53-590B)	26 Mar 53
District Public Works Office, Third Naval District, Federal Office Building, Room 633, 90 Church St., New York 7, N. Y.			
Replacing existing gas ranges in 169 dwelling units with liquid petroleum GS ranges and 1 spare range-Miscellaneous work-conning towers housing project, U. S. Naval submarine Base, New London, Conn., deposit of $10 required to obtain plans and specifications	Job	35724/	31 Mar 53

GENERAL SERVICES ADMINISTRATION

Description	Quantity	Reference No.	App. Bid Date
Business Service Center, General Services Administration, Region 5, 219 S. Clark St., Chicago, Illinois			
Refrigerators, commercial type VA Spec T-VA-M4300C	33 ea.	DCH-62364	27 Mar 53
Cabinet low temp. storage	4 ea.	DCH-62364	27 Mar 53
Refrigerators, Fed. Spec AA R-211C 9 cu. ft.	1 ea.	DCH-62041	24 Mar 53
Ref. cabinet low temp, approx. 11 cu. ft.	1 ea.	DCH-62041	24 Mar 53
Ref. cabinet low temp, approx. 18 cu. ft.	1 ea.	DCH-62041	24 Mar 53

U. S. DEPARTMENT OF COMMERCE

Description	Quantity	Invitation No.	Opening Date
Chief, Purchase and Sales, Maritime Administration, 45 Broadway, New York 6, New York			
Refrigeration equipment and parts	Various	(NY-MA-53-110)	23 Mar 53

CONTRACTS AWARDED THROUGH MARCH 13

Aviation Supply Office, 700 Robbins Ave., Philadelphia 11, Pa.

Refrigeration Units 383/2110-511/52.—Various. $388,054.—Aireserach Mfg. Co., Div. of the Garret Corp., 9851-9951 Sepulveda Blvd., Los Angeles 45, California.

Navy Purchasing Office, New York, N. Y.

Plants, water cooling.—6 ea., $184,979.—Carrier Corp., 385 Madison Ave., New York 17, N. Y.

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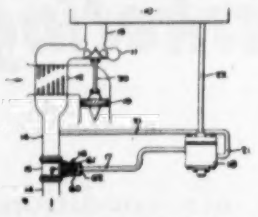
AIR CONDITIONING & REFRIGERATION NEWS

"The Newspaper of the Industry"

PATENTS

Week of November 18

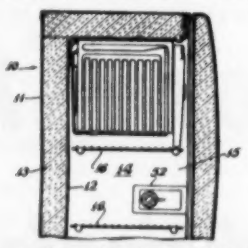
2,618,125. PREASSURE RATIO VALVE FOR AIRCRAFT AIR CONDITIONING SYSTEMS. Richard A. Fischer, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a Corporation of California. Application May 3, 1949, Serial No. 91,091. 13 Claims. (Cl. 62—2.)



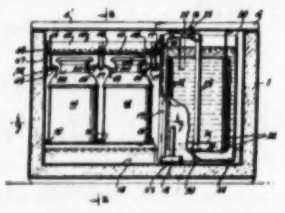
1. In an aircraft air conditioning system including an expansion engine and a controllable flow valve in the inlet to said engine, an overspeed control for said engine comprising: means responsive to the pressures in the inlet and outlet of said engine; means responsive to the ratio between said inlet and outlet pressures; and means associated with said pressure ratio responsive means for controlling the position of said flow valve.

2,618,126. COMBINATION TEMPERATURE CONTROL AND ILLUMINATING LIGHT CONTAINER FOR REFRIGERATOR CABINETS. Arthur R. Edwards, Evansville, Ind., assignor to International Harvester Company, a corporation of New Jersey. Application May 5, 1950, Serial No. 160,368. 6 Claims. (Cl. 62—2.)

1. In a refrigerator cabinet having a refrigerated compartment, the combination of a container having an opening therein and mounted in one wall of the compartment, a translucent cover for the opening of said container, a temperature control device mounted in said container, an incandescent illuminating light mounted in said container and adapted for illuminating the interior of the compartment, said light being mounted in thermal association with said temperature control device so that the heat incidentally resulting from the operation of said light is utilized to maintain the ambient temperature of said control device above the temperature of the refrigerated compartment, and an electric circuit for said light.



2,618,127. MILK COOLER. Russell C. Shipman, Ithaca, N. Y., assignor to United Co-Operatives, Inc., Alliance, Ohio, a corporation of Indiana. Application June 29, 1949, Serial No. 102,031. 4 Claims. (Cl. 62—61.)



2. In a can cooler, the combination of a cabinet, a cold water tank within said cabinet, said tank having an overflow spout, a main trough under said spout, said trough being open at its end under said spout to provide a reverse spill-way of the counter-flow type, laterals on said main trough, said laterals having orifices by which water may be discharged on the cans in the cooler.

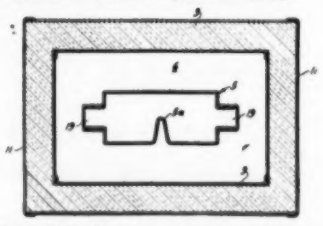
2,618,128. COMBINATION BEVERAGE AND MEAT CASE. Larry Walker, Danville, Va. Application February 1, 1950, Serial No. 141,769. 2 Claims. (Cl. 62—89.5.)

2. In a refrigerating case, a hollow housing including a bottom wall, a back wall, a front wall of greater height than said back wall, a pair of vertically disposed side walls coacting with said front, back and bottom walls to define a bottle-holding compartment, there being a drainage opening in the bottom wall, cooling coils arranged in said back wall, an inclined frame projecting from the upper end of said back wall and havng its upper end of said back wall and having its upper end spaced from said front wall, a plurality of sliding doors carried by said frame and permitting access to said beverage-holding compartment, a body member including a hollow casing projecting through the space between said frame and front wall and extending into said housing, said casing including a sloping bottom wall provided with a drainage opening, a plurality or horizontally disposed rack bars arranged in said body member for supporting meat thereon, a back member supported on said casing, sliding doors carried by said back member, and an inclined window extending across the front of said body member.

2,618,129. ICE-MAKING APPARATUS. Jesse D. Williams, Jr., Shively, Ky., assignor to Henry Vogt Machine Company, Louisville, Ky., a corporation of Kentucky. Application May 26, 1949, Serial No. 95,557. 6 Claims. (Cl. 62—106.)

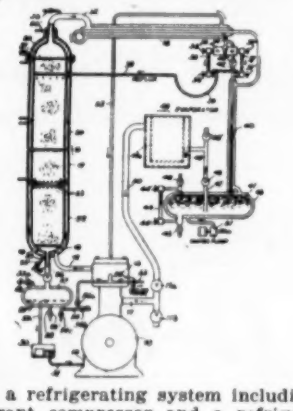
1. A freezing apparatus operating on alternate freezing and thawing phases, comprising: a vertical tube internally accommodating the downward flow of a liquid to be solidified; supply means for feeding said liquid to the upper portion of the tube during the freezing phase; shell means providing a chamber around the upper portion of the tube adapted to contain a liquid refrigerant during the freezing phase, with the lower end portion of the tube projecting beyond the evaporator chamber; refrigerant reconditioning means including a condenser connected to the evaporator chamber to recondition vapor drawn from said chamber and promote the evaporation of liquid refrigerant in said chamber so as to refrigerate said tube and solidify said medium into a rod therein; means for supplying liquid refrigerant from the condenser to said evaporating chamber during the freezing phase; means operative during the thawing phase to introduce warm gas into the evaporating chamber to thaw the rod loose from the upper part of the tube and promote the gravitational discharge of the rod through the bottom end portion of the tube; means providing a thawing compartment around the projecting lower end portion of the tube; and means for introducing warm refrigerant fluid into said thawing compartment from the refrigerant reconditioning means during at least one of said phases to supply heat to prevent any solidified material from adhering to said lower end portion of the tube so as to enable said rod to begin to discharge from the lower end of the tube as soon as it is thawed loose from the upper part thereof.

2,618,131. QUICK FREEZER APPARATUS AND PACKAGE. Roy M. Magnuson, Campbell, Calif., assignor of one-third to George H. Ballantyne, San Jose, Calif., and one-third to Cassius L. Kirk, Bozeman, Mont. Application May 3. 1947, Serial No. 745,689. 4 Claims. (Cl. 62—114.)



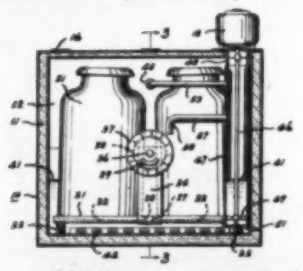
1. In quick freeze apparatus for processing material in a package having a recess extending from side to side of one surface thereof, a refrigerant chamber, a freezing tunnel of fluid-tight construction of generally rectangular cross section having fluid-tight side surfaces for engagement with four outer surfaces of a rectangular package, and means in heat conducting relationship with a side surface of the tunnel for engaging said surface of the package.

2,618,132. REFRIGERATION SYSTEM WITH REFRIGERANT CLEANING MEANS. Francis Marion Pottenger, Jr., Monrovia, Calif. Application August 30, 1948, Serial No. 46,785. 9 Claims. (Cl. 62—117.75.)



1. In a refrigerating system including a refrigerant compressor and a refrigerant condenser, a refrigerant-scrubbing fractionator column connected between the compressor and the condenser and having an upflow passage for contaminant-bearing gaseous refrigerant, and reflux means for returning a part of the liquefied refrigerant downwardly through the column from the upper portion thereof to clean the gaseous refrigerant.

2,618,134. LIQUID COOLING APPARATUS. Daniel L. Kaufman, Dayton, Ohio, assigner to General Motors Corporation, Dayton, Ohio, a corporation of Delaware. Application December 8, 1949, Serial No. 131,894. 9 Claims. (Cl. 62—141.)

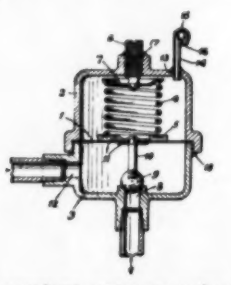


1. In combination, a cabinet having a plurality of walls forming a compartment therein, a body of liquid in the lower portion of said compartment, means for cooling the body of liquid, means for movably supporting a receptacle containing a substance to be chilled within said compartment, means for circulating cooled liquid upwardly from the body thereof, means for spraying cooled liquid into contact with said receptacle, a water wheel disposed above the level of the body of water in said compartment and being so constructed and arranged as to impart movement to said receptacle for agitating the substance therein while chilling same, and means for directing a stream of the circulating cooled liquid upon said water wheel to rotate same.

2,618,215. VENTILATING DEVICE AND LIKE AIR SUPPLY AND DISTRIBUTING DEVICE. Thomas Charles Pitt, Birmingham, England. Application May 3, 1948, Serian No. 24,797. In Great Britain July 1, 1943. 13 Claims. (Cl. 98—40).

1. A diffuser for ventilating and like purposes comprising a plurality of partitions forming adjacent diverging passages and dividing means located at the inner ends of the partitions which are nearest together and mounted in the inner ends of the passages intermediate the inner edges of the passage forming partitions and with their inner ends flush with the inner ends of the passage forming partitions, which cause the air streams through the entrance of the passages to be broken up so that the flow of air across the outlet end of each of the passages is substantially unidirectional while the direction of flow at some distance from the diffuser and immediately in front thereof is in the opposite direction to that of the air flowing through the diffuser and to the sides of the diffuser.

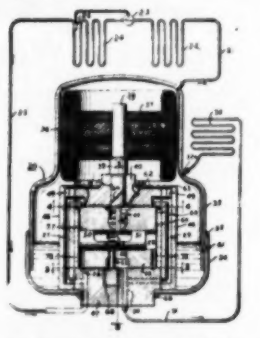
2,618,290. THROTTLING VALVE FOR REFRIGERATION. Paul D. Van Vliet, Chicago, Ill., assignor to Liquid Carbonic Corporation, Chicago, Ill., a corporation of Delaware. Application September 22, 1949, Serian No. 117,198. 5 Claims. (Cl. 137—510.)



1. In a constant pressure valve, a housing, a flexible closure sealed to the walls of said housing and providing with said housing a closed spring chamber above said closure, said housing having inlet and outlet openings below said flexible closure being evacuated, a valve seat at the outlet opening, a valve carried by said flexible closure and movable towards said seat to close said outlet opening, a compression spring in said chamber urging said flexible closure towards said seat, said housing about said chamber being provided with an outlet passage through which said chamber is evacuated, and means for sealing said passage.

4. In method for setting a valve in a closed system in which a closed chamber is provided above a flexible closure and houses a spring urging the closure and a valve carried thereby toward a valve seat, the steps of compressing the spring to exert a force upon the flexible closure greater than that required to give the final valve setting, then evacuating the chamber above the closure to such a degree that the valve is brought to said final setting.

2,618,430. REFRIGERATING APPARATUS. Rolf M. Smith, Dayton, Ohio, assignor to General Motors Corporation, Dayton, Ohio.



1. In combination, two substantially cup-shaped members secured together to form a closed casing having an upper chamber and a lower chamber therein, said members providing the sole means of supporting an electric motor and a compressor within said casing, an electric motor including a stator secured to the upright wall of one of said members in said upper chamber and having a rotor within said stator, a sealed compressor within the lower chamber of said casing including a closed stationary housing secured to and supported upon the bottom wall of the other of said members, said upper and said lower chambers being in open communication with one another, a drive shaft depending from said roto, said drive shaft being supported upon said compressor housing and having a part thereof extending thereinto, a pair of aligned pistons in said housing secured to said shaft to rotate therewith and about the axis thereof, a second pair of aligned pistons in said housing mounted to rotate about an axis parallel to and offset from the axis of said shaft, cylinders about said pistons disposed one above the other, said cylinders being fixed with respect to each other and free to rotate as a body about a body axis parallel to said shaft and said body axis moving about an orbit within said housing, said housing including a top having a lubricant reservoir provided therein, a passageway extending through said top from the bottom of said reservoir and communicating with the interior of said housing for conducting lubricant directly from the reservoir into contact with the cylinders of at least said first named pair of pistons, and the open communication of said upper chamber with said lower chamber permitting lubricant to overflow the reservoir and drop to the bottom of said other of said members.

(To Be Continued)

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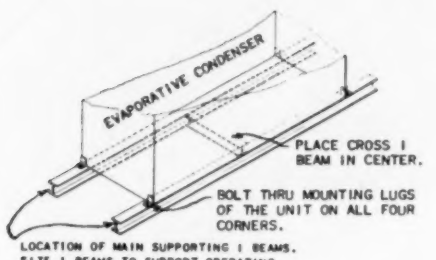
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PLACE CROSS I BEAM IN CENTER.
BOLT THRU MOUNTING LUGS OF THE UNIT ON ALL FOUR CORNERS.
LOCATION OF MAIN SUPPORTING I BEAMS. SIZE I BEAMS TO SUPPORT OPERATING WEIGHT OF UNIT.

FIG. 9 (above) shows suggested I-beam framework for supporting evaporative condenser.

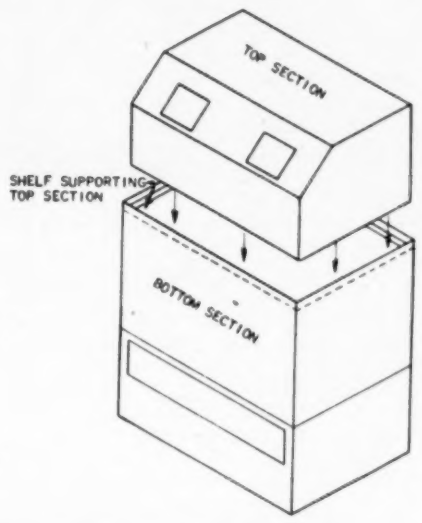


FIG. 10 (right) shows how top section (which can be rotated 180°) fits into bottom section for assembly on job.

By John Engalitcheff, Jr., President, Baltimore Aircoil Co., Inc.

INSTALLATION OF EVAPORATIVE CONDENSERS

Basically, the evaporative condenser is an outdoor piece of machinery and consequently the best location for it is outside. However, sometimes it is necessary that it be located inside of the building, due to space limitations or because the evaporative condenser is used as a means of ventilation.

In cases where the evaporative condenser is installed inside be sure that there is adequate provision for air supply to the condenser inlets.

B. A. C. type "U" and "UL" evaporative condensers are so designed that they may be installed either inside or outside. Our fan motors and drives are selected to operate with either free discharge or at ⅛ in. maximum static pressure. Consequently, when the external static is over ⅛ in., contact the factory for recommendation on fan motor horsepower required.

The model "P" evaporative condensers are designed for outdoor installation only as they are not capable of delivering air against any external static.

In any case, whether the condenser is installed outside or inside, when locating the condenser you should take into consideration the following points:

1. Be sure that there is sufficient free and unobstructed space around the unit for proper servicing.

2. Make certain that there is a free and unobstructed flow of air to the condenser inlet(s).

3. Make sure that the flow of the discharge air is not deflected in any way that might cause short circuiting of the air. The possibility of short circuiting should be particularly considered on multiple condenser installations.

SUPPORTING STEEL FOR EVAPORATIVE CONDENSERS

The suggested supporting steel arrangement for B. A. C. evaporative condensers is shown in Fig. 9.

Design "I" beams large enough to support the operating weight of the condenser as listed in the catalog.

Should the condenser be placed directly on the floor, put spacers of similar shape to those shown in Fig. 9 so as to provide air circulation between the bottom of the condenser and the floor.

ASSEMBLING B. A. C. EVAPORATIVE CONDENSERS

All B. A. C. evaporative condensers are made and shipped in two (2) sections. The top section simply rests on the internal shelf of the bottom section and the assembly is made by lowering the top section into the recess of the bottom section as shown in Fig. 10.

When assembling, the top section may be rotated 180°, thus obtaining different directions of discharge and position of access doors.

If outside installation fasten top and bottom sections together with sheet metal screws for security.

(To Be Continued)

Capell Named President Of Philco International

PHILADELPHIA — William Balderston, president, Philco Corp., announced recently the appointment of Sydney Capell, vice president and general manager of Philco's Canadian operations, as president of Philco International Corp.

He succeeds Dempster McIntosh who resigned to enter business in New York City, but who will continue as a consultant to Philco on international trade.

Capell has directed the manufacturing and sales activities of Philco Corp. of Canada, Ltd., for the past 17 years. As Philco International president, in charge of the worldwide Philco business, he will make his headquarters at the corporation's main offices which are located in Philadelphia.

McIntosh has been associated with Philco's international activities since he joined American Steel Export Co. as a vice president and director of that company which formerly handled Philco export sales. In 1943, he assumed the presidency of Philco International when that company was formed to integrate sales to other countries with manufacturing operations abroad.

Philco now has manufacturing plants in Canada, England, Mexico, Brazil, and Colombia to produce goods for sale locally in addition to those exported from the United States.

Before taking charge of Philco's Canadian operations, Capell was general manager of Philco of Illinois, Inc., predecessor of Philco Distributors, Inc., of Chicago. He joined the Philco organization in 1930 as general sales manager of Philco Radio & Television Corp. of New York, having previously been engaged in marine wireless telegraphy and early development activities in radio and television.

In 1950 Capell served as managing director of Philco (Overseas) Ltd., and Philco (Great Britain) Ltd., combining that task with direction of Philco Corp. of Canada.

Westinghouse Appoints MacGillivray Eastern Mgr.

MANSFIELD, Ohio—Appointment of Ogden H. MacGillivray as eastern district manager for the Westinghouse Electric Appliance Div. was announced recently by W. B. Creech, manager of marketing.

MacGillivray succeeds W. H. Loeber who has accepted an appointment with the Westinghouse Electric Supply Co. as eastern regional manager, consumer products.

In his new post, MacGillivray will be responsible for coordinating and planning the sales, merchandising, and distribution of Westinghouse appliances in the Appliance Div.'s eastern district which includes all of New England and New York state, as well as parts of New Jersey and Pennsylvania.

Third Expansion In 3 Years Lets Orley Double Its Output

DETROIT—The third addition to the Orley Corp. factory here in three years has recently been completed to permit Orley to double its 1952 production of freezers, George Orley, president, announced recently.

As part of the expansion, the latest type conveyorized automatic Bonderizing, painting, and baking equipment has been installed, Orley pointed out.

Sales volume on Orley food freezers for last year was more than double the previous year and, according to Edward D. Burd, general sales manager, January and February, 1953 volume was 24% ahead of last year.

Maintaining its factory-to-dealer policy with warehouses throughout the country for fast deliveries, Orley has added three new warehouses—one to service the St. Paul-Minneapolis territory; one the Chicago area, and one in Boston for the New England territory.

Orley also maintains permanent offices and exhibits in the Western Merchandise Mart, San Francisco, and the Chicago Merchandise Mart.

Orley has added to its sales force and is expanding its advertising and sales promotion program, Burd said. Schedules call for increased advertising in the trade publications and additional magazines and TV programs in the consumer field in a bid for a larger share of the food freezer market.

Orley manufactures three commercial units, including a lighted display model. The domestic line includes six models—both chest type and upright—from 8 cu. ft. to 20 cu. ft.

Spencer Quits Norge To Become Principal In Distributorship

BOSTON — Dean Spencer, northeastern regional manager for Norge Div., Borg-Warner Corp., has resigned effective March 15 to go into the appliance and television distributing business. He is joining Valley Appliances, Inc. in Knoxville, Tenn., Norge and Emerson distributor, as a principal.

Dean Spencer

Spencer started with Norge in 1939, as field service representative, after eight years with the Norge distributor in Oklahoma City. During his 14 years with Norge, he held several positions including southern sales manager in Atlanta and director of refrigeration in Detroit, before coming to Boston.

A. A. Atkins, president of Valley Appliances, announced that Spencer will be in charge of an expansion program to include larger facilities and improved service to appliance and television dealers in eastern Tennessee, western North Carolina, southwest Virginia, and southeastern Kentucky.

Norge Appoints Smith Sales Training Director

CHICAGO—Appointment of Charles H. Smith as sales training director for the Norge Div. of the Borg-Warner Corp. was announced recently by H. L. "Red" Clary, vice president in charge of sales.

Smith's most recent position was at Hotpoint.

The KEY *to* AIR CONDITIONING

by James J. LaSalvia

COMPLETE *SERIES!*

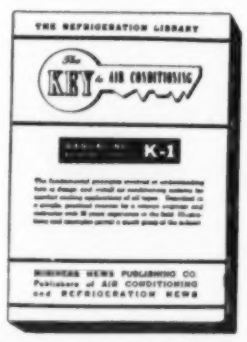
A modern series of 3 simplified, practical training manuals and reference books to help you with the layout and installation of comfort air conditioning.

The *Key to Air Conditioning* gives you a whole picture of comfort air conditioning in crystal clear language. It gives immediate answers to almost every problem in layout and installation. It covers the important details that add up to larger profits on your air conditioning jobs. The author, James LaSalvia, is an experienced engineer of 30 years with extensive background in teaching and writing.

MANUAL NO. K-1—The physics of air conditioning; use of charts; methods of ventilation; figuring air requirements; refrigeration problems in air conditioning; use of fans; methods of air distribution. Psychrometric chart included with book.

MANUAL NO. K-2—Sheet metal ducts (sizing methods, problems of design); discussion of air cleaning devices; heat transmission coefficients; problems and tables for figuring heat gain; air through cooling coils; selection of cooling coils, expansion valves, compressors, and water cooling coils.

MANUAL NO. K-3—General discussion of heating systems; selection of heating coils (air friction, condensation); description and operation of evaporative condensers; water cooling towers; automatic controls; piping refrigerant, water, and steam; and insulation problems.



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POSITIONS WANTED

SALES MANAGER having extensive experience with leading manufacturers in the commercial refrigeration, air conditioning and heating industries will be open for position after April first. National acquaintance with distributors, jobbers and manufacturers agents. Very aggressive. Right age. Large and small corporation experience. Free to travel and relocate. BOX 4267, Air Conditioning & Refrigeration News.

AIR CONDITIONING ENGINEER—BSME, registered, 11 years with large manufacturer designing, rating and applying self contained air conditioners. Getting in rut. Desire new connection with room to grow. Presently located in east. BOX 4268, Air Conditioning & Refrigeration News.

POSITIONS AVAILABLE

MANUFACTURER'S REPRESENTATIVE wanted. Good opportunity for representatives who call on refrigeration equipment dealers and distributors. Desirable territories open with active accounts in most areas. State experience, territory covered, and industry references in first letter. COLDIN CABINET CO., INC., 2800 Webster Ave., New York 58, N. Y.

SALES REPRESENTATIVE for Chicago, and states of Illinois, Indiana, Wisconsin, Michigan. Complete line of commercial refrigerators. Salary, expenses, and incentive plan. Write, giving qualifications and references. WARREN REFRIGERATORS, Box 1436, Atlanta 1, Georgia.

DISTRICT SALES supervisor wanted. We can offer an experienced commercial refrigeration sales supervisor an attractive proposition in the midwest territory with headquarters to be in Chicago or immediate vicinity. Primary job would be selection of new distributors and working with those already established. The ability to help distributors select and train new salesmen, actually showing them how to close a sale, would be an important asset to the man we want. If selected and you prove yourself, the way is open for earnings in excess of industry average for similar work. BOX 4246, Air Conditioning & Refrigeration News.

MIDWESTERN REFRIGERATION and air conditioning manufacturer needs an experienced service manager. Must be able to organize service department and handle customer complaints. Must be familiar with air conditioning and refrigeration installations and equipment. Age range 35-45. Salary open. Address replies, giving full details of work history to BOX 4269, Air Conditioning & Refrigeration News.

ASSISTANT CHIEF engineer. Midwestern refrigeration and air conditioning manufacturer needs an experienced assistant chief engineer. Mechanical engineering degree required. Age range 35-40. Major experience in air conditioning and refrigeration. Must be familiar with electrical refrigeration and air conditioning controls. Some experience in field application and developmental work desirable. Experience in handling administration functions of engineering division imperative. Salary open. Address replies giving full details of working history to BOX 4270, Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

WE ARE in the market for 1500 old 145 lb. Freon Cylinders with valve & cap intact. Convert useless inventory to cash. Write EVERGREEN INDUSTRIES, 630 Colonial Ave., Pelham Manor, N. Y.

EQUIPMENT FOR SALE

NEW—⅓ and ½-hp. open type refrigerating units, air cooled. Price: ⅓ hp.-$84.24; ½ hp.-$102.60. These units are equipped with Chieftain compressor bodies and Century capacitor type motors with built-in thermal protection. Freight allowed on quantity orders of 10 units or more, may be assorted sizes. Write for literature and specifications. ARCTIC-AIRE, 1621 Grand Ave., Kansas City, Mo.

SPECIAL OFFERING ⅛-HP domes (motor compressor assemblies) Model S64 @ $33. Also following complete units. ¼-HP sealed @ $45, ⅓-HP sealed @ $55, ½-HP sealed @ $70. Other sizes up to 5-HP. Write for specifications. Limited quantity. Act now. MANN REFRIGERATION SUPPLY CO., 440 Lafayette St., NYC, GRamercy 3-8000.

ATTENTION SERVICEMEN — Send for our 1953 Catalog. Relays, Expansion Valves, Controls, Dehydrators, V Belts, Open & Hermetic Units. All new merchandise at great savings up to 50%. Sold on Money Back Guarantee. WALTER W. STARR REFRIGERATION, 2833 Lincoln Ave., Chicago 13, Illinois.

FOR SALE New Trane Direct Drive #10BT—10 H.P. compressor, less motor, in original crate $750.00. 2 Mario Low Temp Unit, Model LT-368—7560 CFM (ammonia) with automatic defrosters (used only several months) $1500.00. Write BOX 4261, Air Conditioning & Refrigeration News.

BUSINESS OPPORTUNITIES

LOCKER PLANT for sale. 194 lockers in leased building. Partially completed building nearby to go with sale. Town population 3500, no other locker within 20 miles. Complete processing equipment. Price $6,500. Must sell to settle estate of deceased husband. Write MRS. WALTER R. SIMPSON, Youngsville, Pa.

MANUFACTURER'S REPRESENTATIVE calling on refrigeration dealers and distributors in Kansas, Iowa, Minnesota, North and South Dakota to sell complete line of chest and upright freezers and commercial refrigeration. Write complete information giving education, experience and references to BOX 4271, Air Conditioning & Refrigeration News.

MISCELLANEOUS

NORGE SEALED units remanufactured or exchanged. Immediate delivery from stock, 2 year warranty. Freon refrigerant. Write for prices and shipping instructions. Genuine Norge terminals for Norge sealed units. Sets of three, $1.15 plus postage. MODERN REFRIGERATION CO., INC., 12541 E. McNichols Road, Detroit 5, Mich.

Frigid Room Air Conditioner.

Frigid Room Cooler--

(Concluded from Page 1, Column 2)

Functions of the air conditioner are cooling, dehumidifying, filtering, circulating, exhausting, and ventilating. Features include built-in thermostatic control for variable cooling, adjustable louvers to direct air in any direction, and concealed control panel.

The unit comes equipped with all parts required for installation in double-hung sash windows up to 46 in. wide (kit for 60-in.-wide windows is special), according to the company.

All models are 26¾ in. wide, 16 in. high, and 28½ in. deep. Construction is of heavy-gauge steel, with the pan die-formed of .090 thick steel and the inside cabinet die-formed of 20-gauge steel. The entire unit is phosphatized for corrosion resistance and is finished with a double coating of marresisting baked enamel in "Tuscon Beige" to blend with any furnishings.

Motor and compressor unit is spring mounted. Compressor motor is of the capacitor-start, induction-run type, accessibly mounted and equipped with starting switch and overload protector.

Condenser coil and evaporator coil are of aluminum fin on copper tubing (continuous tube construction). The condenser fan is the die-formed aluminum propeller type with slinger ring, and the evaporator fan is the housed centrifugal type with aluminum rotor.

A throw-away type air filter is provided, as is a heat interchanger "for increased operating efficiency." Controls include a three-position switch controlling room air circulating and cooling functions separately, thermostat controlling compressor operation, and controls for fresh air and for exhaust dampers. All four are concealed under a hinged cover.

Cooling capacity of the ½-ton model is given as 6,050 B.t.u. per hour, that of the ¾-ton unit as 9,150, and that of the 1-ton model as 11,300. The models are for areas of 200—300 sq. ft., 300—400 sq. ft., and 400—600 sq. ft., respectively.

The ¾-ton unit is available for 115 and 230-volt operation.

"Freon-12" is used in the ½ and ¾-ton models and "Freon-22" in the 1-ton model.

Maytag Sales Hit New Peak

NEWTON, Iowa—Maytag Co. reported that sales in 1952 reached a new peak of $86,894,946 and that net income totaled $6,702,317, equal to $3.66 a share. Sales in 1951 amounted to $82,700,074 and net income was $6,080,191, or $3.28 a share.

REMA Meeting--

(Concluded from Page 1, Column 4)

Ahead For Selling." One of the better known speakers in the country on sales subjects, he has held a number of prominent executive sales positions. Both of these talks will be presented at the annual business meeting on Tuesday, March 31, which will open with a breakfast session at 8:30 a.m., at which REMA President John E. Dube, president of Alco Valve Co., will present the president's annual report.

The REMA board of directors will meet on Sunday, March 29. On Monday, March 30, the morning will be given over to Product Section meetings, and a meeting of the Credit Group. The Excise Tax Committee will meet Monday afternoon.

Social events include a golf tournament on Monday afternoon, and a cocktail party and dinner dance on Monday night, at which the entertainment will be provided by Michael MacDougall, well-known as the "Card Detective" who exposes tricks of the professional gamblers.

West Penn Sales--

(Concluded from Page 1, Column 2)

Sales of automatic washers were up 6% and water heaters 3%.

Slipping below their January, 1952 levels, electric range sales were down 1%, refrigerators 3%, vacuum cleaners 10%, ironers 17%, room coolers 40%, dishwashers 45%, and garbage disposers 58%.

Comparative unit sales of the various appliances were as follows:

Appliance	Jan. 1953	Jan. 1952
Home Freezers ..	316	247
Refrigerators	957	988
Room Coolers	3	5
Ranges	595	601
Dishwashers	29	52
Garbage Disposers	21	49
Clothes Dryers ..	378	252
Automatic Washers	448	422
Conventional Washers	1,179	1,055
Vacuum Cleaners.	517	576
Water Heaters	269	262

South Carolina U. To Have Air Conditioned Libraries

COLUMBIA, S. C.—According to Dr. W. H. Patterson, assistant to the president, University of South Carolina, extensive interior renovation, including air conditioning of library rooms and face-liftings for two complete buildings, has recently been completed or is now under way.

Included among improvements noted by Dr. Patterson is the air conditioning of four large reading and reference rooms in the McKissick Memorial Library.

He said work has also begun on air conditioning of the University School of Education library and the adjoining University High School library in Wardlaw college. Wall vents for installation of equipment have been cut and it is expected that this phase of the work will be completed in the spring by Columbia Cooling & Heating Co.

Iron Fireman Cooler.

Iron Fireman--

(Concluded from Page 1, Column 5)

An outstanding feature is the inclusion of a thermally activated multiple feed expansion valve. A receiver is provided for a generous supply of "Freon-12" refrigerant. The condenser is easily cleaned, and can be connected either to a city water system or to a cooling tower.

Complete protection is furnished by a thermal overload device and by a high-low pressure control. A thermostat or humidistat is electrically connected with the solenoid valve to assure accurate temperature and humidity control.

The unit now is available in 2 and 3-ton sizes, measuring 22 in. by 37 in. by 47 in. It can readily be installed in any forced warm air heating system, old or new.

Detroit Contractors--

(Concluded from Page 1, Column 3)

tee to invite union representatives to meet with it and discuss terms of the contract, Murphree said. He added that the labor committee will use a contract that is already in force with two member firms as a basis of discussion. These members have indicated that the contract has worked out very well for them.

Murphree stated that negotiations will affect refrigeration servicemen only. It will not affect office or shop employes, truck drivers, or supervisory personnel.

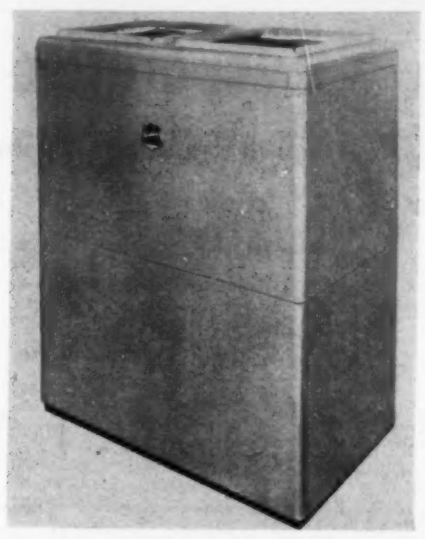
"There are many questions still to be ironed out," Murphree said. "One in particular will be the status of one and two man shops. There are a number of these in the association."

Murphree indicated that the union has been after the association to negotiate for all its members for a number of years. In view of this fact, he anticipates that negotiations for initial contract should go smoothly.

Murphree believes that association-wide bargaining will be advantageous to the contractors.

The issue of association-wide bargaining was brought more sharply into focus last December, following a merger of the Refrigeration Contractors Association of Detroit and the Air Conditioning Contractors Association.

The latter group, composed of 10 contractors handling large air conditioning and refrigeration installations, had voted to disband and join the new group. The question of union servicemen was vital to them, it is reported, because much of their work was done on contracts where only union labor could be employed.



U. S. Summer Air Conditioner.

U. S. Radiator--

(Concluded from Page 1, Column 4)

buildings heated by warm air furnaces.

"The new U. S. Summer Air Conditioners will be available in 2, 3, 5, and 7.5-ton units. One model is designed for installation in connection with basement-type warm air furnaces, and the other model is for attic and utility room installations.

"The new units will be distributed through U. S.'s present channels of distribution."

New Charlotte Bldg. Cooled

CHARLOTTE, N. C.—United States Rubber Co.'s new Charlotte branch and tire distributing center at 3330 Monroe Rd. is air conditioned.

the unit you've wanted for reach-ins . . . THE BUSH DJ

They're compactly designed and ceiling mounted to allow complete use of shelf space in reach-in refrigerators.

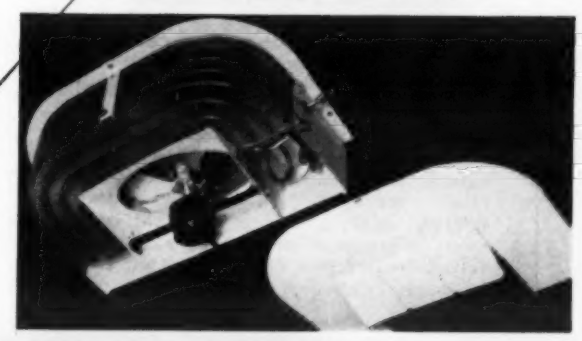
Air moves through the coil and down the back wall, providing perfect diffusion of air circulation that eliminates air blasts . . . minimizes dehydration of produce.

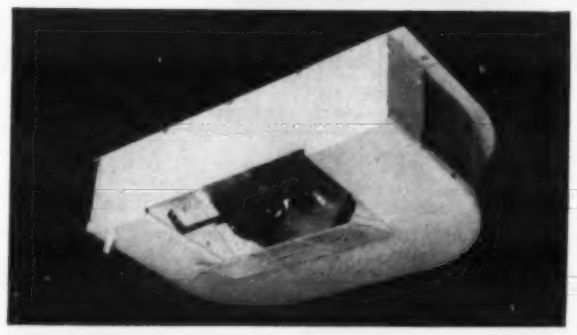
Fans on Bush DJ Units are completely and safely guarded . . . motors permanently lubricated. A TX valve can easily be mounted inside the case.

Removable drain pan permits ready accessibility to all parts, and durable finish of baked white enamel on entire exterior provides attractive appearance.

Bush DJ Unit Coolers are available in four different sizes, to meet varying requirements. All have customary conservative Bush ratings.

Specification sheet free on request.





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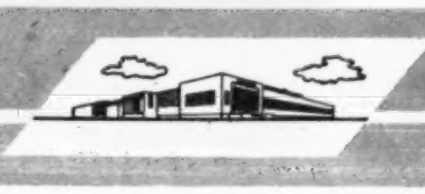

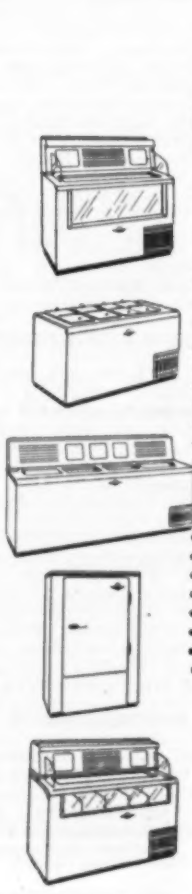

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